EDITORIAL

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Subscription Price, $3.00 the year. Single Issues, 50 cents.

A Specialized Technical and Commercial Magazine for Confectionery Superintendents, Purchasing Agents and Executives

Published Monthly on the 15th by
The MANUFACTURING CONFECTIONER PUBLISHING CO.
30 North La Salle St., Stock Exchange Bldg.
CHICAGO
New York Office, 5 Cortland Street., R. W. Younie, Mgr.
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Purchasing and Production Executives

You are especially invited to attend the N. C. A. Exposition in Chicago the week of May 24th for a number of reasons. First, it will be the "informashow" of the confectionery industry, as the association of purchasing agents might say. The purpose of the Exposition is mainly to make it "informative," to provide an opportunity for the executives of both the candy manufacturers and the supply and equipment firms to establish and renew personal contacts which are conducive to mutually profitable relationships with the supply field. This is an ideal occasion to meet the key men of the leading supply firms and discuss your problams and conditions with them without having an order book pushed under your nose in a spirit of conference rather than of a solicitation for business. (See directory of exhibitors, pages 17-21.)

More Quality—Same Old Price—and More Profit!

Yes, sir, that's what recently happened with a very well-known candy bar which has enjoyed a tremendous sales volume and has now got its second wind and going bigger than ever. It was this way:

When this manufacturer sensed the first sure signs that one item in his line was a conspicuous success he made plans for big volume and laid out two courses of action. First, he employed a very competent engineer to study the manufacturing of the product and eliminate every possible waste in the process and modernize the production of the piece in every way. It was soon found that the savings thus affected amounted to as much as the former margin of profit, which meant that profits were then doubled. Then what?

A price cut would be the natural order of the day, but not in this instance. Quality was at once increased; a better center, a richer caramel, better grade of chocolate coating and more of it; and the answer is that the piece is a "fixture" on the market today because the quality is there at a price which competition cannot touch unless equipped in the same specialized way.

Now, isn't that a safe and sane way of putting it across rather than by high pressure sales campaigns with suicidal slashes in prices in one form or another? There's an extra dividend or two lurking unseen in many candy plants, no doubt, which can be brought forth into real money—the kind that talks—with the help of a little research work and competent engineering counsel.

The Food Manufacturer's Responsibility

IN SPITE of the efficient enforcement of the federal food and drugs act and the efforts of states and cities to supplement this splendid legislation, food handlers still have too little appreciation of their responsibility to the consumer. The larger manufacturers know that success depends upon the character of their service and every step in production, from the purchase of raw materials to the distribution of finished products, is safeguarded by rigid selection inspection and sanitary control.

But there are thousands of food handlers whose only conception of the importance of their service to mankind is measured by daily profits. They comprise dairymen who protest against laws intended to keep milk from diseased cows from our children, restaurant operators who make no effort to select healthy cooks and waiters, grocers and butchers who expose their merchandise to contamination by air-borne bacteria, and still another group which in self-satisfied contentment asserts its right to make and sell food on the broad ground of constitutional privilege.

Of course, there are no such rights. The man who would start a bakery or market without first knowing every sanitary regulation affecting his business should never be al-

lowed to open his doors. The consuming public expects the food handler to know that his product is wholesome and it has provided chemists and inspectors to assist him in attaining this end. The progressive manufacturer or vendor welcomes the assistance of these aids and appreciates as his most valuable asset the favorable rating given his business methods. But there are men who still resent inspection and who deny the right of the consumer to inquire into their business methods. They confuse their shop with their home and would make it a castle in which to defend obsolete ideas of minding their own business.

Such a position cannot be defended, and while they are fighting to hold it they throw a cloud of distrust over their entire industry. The consumer who knows that his baker resents inspection naturally concludes that there must be some insanitary condition responsible for his attitude. Accordingly, he condemns all bakery products, regardless of the fact that the modern bakery is as sanitary as science can make it.

In a midwestern city an ordinance was recently introduced in the city council to provide for more adequate protection of the public against insanitary conditions in food shops. A committee of bakers, believing that the inspection provided by the state departments was sufficiently rigid to furnish full protection, appeared before the council to oppose the passage of the ordinance. After the smoke of battle had cleared away it was apparent that the only sufferers were the bakers themselves, who were scathingly denounced next morning in the papers for their insanitary premises. Of course, no baker with any conception of his duty to the public will deny the right of inspection which will make such conditions impossible. Nor will he fail to recognize the utter foolishness of protesting against forms of control which assure his customers that the purity of his goods and the sanitation of his shop is guaranteed them thru the health department.

Indeed his concern for the most rigid enforcement of every good and sanitary law should be greater even than that of the consumer. For no matter how fully he complies with the regulations for the protection of the public health, every violation of these codes by competitors or other food handlers brings public censure and distrust to his own door. And that is the reason why the progressive food manufacturer and dealer is the strongest supporter of his health department and why he believes that it is his duty to know that his employes are healthy, his materials pure, his methods modern and his products wholesome.—*Nation's Health.*

Pure Candy—Certified!

THE purpose of this Purity Certification Label is to identify the food manufacturers who safeguard the purity of their products by maintaining reasonable standards of cleanliness, sanitation, hygiene and material control.

To mean anything the Purity Label must be backed up by adequate inspections conducted by competent, accredited sanitary engineers, free from political connections or influences, who will work with food manufacturers in a friendly spirit of constructive cooperation, safeguarding the interests of industry on the one hand and the consumer on the other.

The label being owned by an outside impartial organization, the Industrial Health Conservancy Laboratories, an independent organization of sanitary engineers and medical men of high repute, the Purity Label will no doubt have a greater significance to the public than if initiated and financed by manufacturers in any one industry.

By this plan the legitimate candy manufacturers may "tie in" with a constructive influence which all quality food manufacturers should exert among the fraternity of food producers, and that is "to KNOW that their employes are healthy, their materials pure, their methods modern and their products wholesome," which is the least of their responsibility to the consumer.

**The design of the emblem above represents a symbolism as old as time. It tokens the perpetuation of life, pure and undefiled, as expressed in the evergreen tree. Thus it becomes most appropriate to suggest safeguards to health, purity and excellence in the manufacture of all food products. A more complete presentation of this subject will appear in subsequent issues.*

A Lesson from Peppermint

An Editorial by A. Adams Lund

WHEN an ordinarily subdued market runs wild at the bases as did the peppermint oil market during the year just past, it attracts the attention of numerous outsiders who find in its delirious course sufficient material to provide the lay public with a kick. The resulting misinformation appearing in the non-technical press is altogether too often regarded as *fact*, when actually, the persons or organs which prepared it may never have come in contact with the material or its market previously, hence could not be expected to judge the truth or fiction of the stories which are presented to them.

At the instance of one of the commercial dailies, a survey of the peppermint oil situation was recently prepared by one of the newspaper syndicates, and as is the custom when such a study has been made, subsequently farmed out to several leading dailies and technical periodicals in non-conflicting fields, to be re-edited and appear under many different disguises. While the syndicate is sufficiently disinterested to be above suspicion of bias, the report which it transmitted to its constituents contained numerous inaccuracies and misstatements, presumably attributable to the credulity of their reporter who pinned just the least too much faith upon the veracity of mankind.

An illustration of how these inaccuracies find their way into the public press was afforded several weeks ago, when a reporter for the New York *Times* telephoned to the superintendent of a local candy factory to obtain some information regarding peppermint oil (possibly to pad out his story based upon this very survey). The superintendent, a highly specialized expert on candy manufacturing but naturally quite ignorant on the subject of markets, since he did no buying of the oil himself, was so fussed and flattered that he poured forth a veritable flood of misinformation for the benefit of this distinguished paper. The buyer, who had actually made a study of the commodity, came in during the discourse and listened with amazement to the fanciful tale without being able to check or correct the excited superintendent. It is obvious that reports so obtained are absolutely worthles from a technical standpoint.

It is interesting to analyze the syndicated story which has been served and re-served to us during the past couple of months:

> **"Ninety per cent of the peppermint oil used in the United States has heretofore been produced in an area of some sixty square miles in Northern Indiana and Southern Michigan, known as the 'peppermint belt'."**

The present peppermint-producing area, which extends southwest into Illinois, covers *more than twice* this number of square miles. In Southern Michigan and Northern Indiana there are many broad, level stretches, sometimes several thousand acres in extent, of the deep, fertile muck soil in which peppermint is grown. In this section may be seen rows upon rows of the plants, often a mile or more in length, under a single ownership. For a number of years the actual acreage under cultivation ranged between 20,000 and 25,000 acres. This was *increased* during the past two or three years to over 30,000 acres.

The report continues:

> **"The plant is grown on muck soil that is peculiar to the farming lands of that district, though only found in partial acreages on those farms."**

These "mucklands" were formerly marshes and swamps, reclaimed by drainage, plowing and cultivating—nothing peculiar about them. They are the same rich character of black clay loam that is used for celery and cranberry culture. Peppermint has been cultivated to a lesser extent in the upland plantations chiefly for the reason that it rapidly depletes the soil of its valuable nitrogenous constituents. After the second year's harvest on upland soil, it is necessary that the fields be plowed and a five-year rotation of clover, corn, etc., be practiced before they are again planted to peppermint. The richness of the mucklands makes it possible to cultivate peppermint continuously for six or seven years, merely plowing up the land after each crop and turning the runners under to form the succeeding year's growth. The extreme fertility of this land leads to its inevitable abuse.

Then, to quote further from the survey:

> **"This land in the past has yielded as high as fifty pounds and over to the acre, but its yield has gradually shrunken until the average of production is now not much above eighteen pounds to the acre."**

That the yield suffered a radical decline during the past year, no one can deny; but the figures given are distinctly misleading. The *average* yield in the Michigan and Indiana mint districts has never exceeded 25 to 30 pounds to

the acre. In years past it has run as low as 8 to 10 pounds to the acre. Of course, individual fields of even whole farms frequently run much higher than the average, as high as 80 or possibly 100 pounds having been produced on small tracts under exceptionally favorable conditions. But results better than 30 pounds are not at all general, as the syndicate report would seem to indicate.

> "This (shrinkage in yield) has come about partially from the fact that the farmers have not rotated their crops and partially from the gradual drying up of the muck deposits."

The muck deposits do not dry up in the sense indicated. Rather, the soil becomes exhausted of its mineral elements through overcropping, without sufficient rotation of crops or artificial fertilization.

Further on the story reads:

> "This year's crop of American peppermint was 'blown out,' as the mint farmers in the peppermint belt say. Due to the long dry season last summer, the soil of the muck field turned to dust. On top of this deterrent factor came a good-sized hurricane which lasted a couple of days, blowing the dust-like soil of the mint fields into clouds landing the root-covering far from the plants into piles along the roads and scattering the dirt over miles of adjacent territory not planted to mint. The draught and the winds ruined half of the crop of 1925 peppermint, thus 50 per cent of the acreage gave no yield of oil content, if it survived at all."

Fritzsche Brothers, distillers, differ on the exact agency causing the destruction, but substantiate the extent of the damage wrought:

"The roots were set out early in the spring in the growing districts in the states of Indiana, Michigan and to some extent in Oregon. The growth was favorable until late in May of 1925, when unusually severe frosts in the growing districts caused wholesale destruction of the plant. The growers were then confronted with the necessity of resetting the field, but it was too late to reset a normal acreage. As a result the crop was not only many weeks late in coming on the market, but the quantity of oil distilled was far short of a normal yield."

In which Ungerer & Company concur: "It seems to be pretty well established that last year's crop was below 300,000 (lbs.) as compared with a normal yield of 5/600,000 . . . . the acreage planted having been greater than that of 1924."

Along with this decrease in production comes the prospect of the usual increase in consumption, an increase which has developed with constant regularity every year for some years past. Europe draws largely upon us for her peppermint supply and the domestic demand going into candy, chewing gum and dental preparations absorbs a steadily increasing portion of the crop each year. Thus the position of the peppermint oil market was intrinsically bullish; all that was needed was the spark to set it off.

What Happened to the Eastern End of the Peppermint Belt?

IT is an overworked saying that history repeats itself. Speculation and monopoly are not new to the peppermint industry. It is the old story of the small crop, confined to a limited area and whose prices are susceptible to wide variation. The speculative "corner" reported to have existed in peppermint during the season just past had an interesting parallel as far back as 1844. At that time, the agent of a New York firm, in consideration of certain cash payments, acquired absolute control over the American peppermint market by binding the producers in Ohio and New York States

> *"under heavy penalties, to plow up their mint fields, and destroy the roots, and not plant any more mint, or sell or give away the roots, or produce or sell any mint oil for the period of five years."* (*Proceedings Amer. Pharm. Assoc.* 7:449-459 (1858)).

Ohio has not been heard from since, her once thriving peppermint business having been completely wiped out by the monopoly that entrenched Michigan in her present position of premier peppermint grower, while the production of Wayne, N. Y., the pioneer peppermint county, has long since dwindled into insignificance. Thus the eastern end of the peppermint belt was obliterated by monopoly. What will be the result of the disastrous manipulations of 1925-1926 only time can tell.

The Inevitable Substitute

The syndicate survey reminds us that:

> "While peppermint oil is protected by the rulings of the Department of Agriculture, when the label 'peppermint' is used, there are many uses for the peppermint flavor that do not call for or need the label. It has, therefore, come about that the the substitution of Japanese peppermint oil has been largely practiced."

This fact is all too true. One house informs us: "The use of substitutes has made considerable headway and for many purposes these will probably continue to be used even if American oil goes back to a normal level, as these substitutes can be produced much more cheaply."

The syndicate then brings forth the prize "plum":

> "Japanese Mentha arvensis, when properly distilled, is indistinguishable from Mentha piperita, the American peppermint."

The Bureau of Plant Industry of the U. S. Department of Agriculture categorically denies this statement in these words: "The oils spoken

are not obtained from the true peppermint plant, but are distilled from entirely different species, namely, *Mentha arvensis* piperascens Malinvaud and *Mentha arvensis* glabrata Holmes, respectively. . . . The plant grown there (in Japan) is not, as already stated, the peppermint cultivated in our country, but *Mentha arvensis* piperascens, which is entirely distinct from the true peppermint, not only botanically, but also in taste and odor." (B. P. I. Bull. No. 90.)

Confectioners who have experimented with the Japanese oil during the recent crisis, have discovered to their sorrow that even after double rectification it still possesses an unpleasant odor and a bitter, disagreeable taste.

The report of the syndicate concedes that the Jananese product is proscribed by the Department of Agriculture and that all importations must be accounted for by the users in the United States and used only under labels specifying it as "field mint" or "corn mint," but passes over the fact saying:

> **"Those designations are hardly more than arbitrary ones, specified by the U. S. Pharmacopoeia to differentiate the Japanese peppermint oil from the American product and protect it from competition with the Japanese product of Mentha arvensis, upon which is also levied a 25 per cent tariff."**

Fifty Pounds of Oil Buy a Carload of Sugar

The sequel to this combination of circumstances, short supply, rising demand and substitution, is now past history; yet the secondary causes which contributed to this unprecedented skyrocketing are still cloaked in considerable darkness. Time and again have we had short crops, without the price advancing much above $6 a pound. Here we had prices of $30 and even $34 a pound.

There were probably three other factors re- of as Japanese and Chinese 'peppermint' oils sponsible for this:

First, competition among the larger buyers for the limited supplies available. Up until the past year or two there were only four or five big dealers in the producing fields competing for the annual harvest. Last year a number of the big perfume, tooth-paste and specialty houses sent their own representatives direct to the fields to obtain their requirements. Their spirited bidding for stocks combined with the unexpected widening of the producers' market stimulated prices, while at the same time causing the farmer to hold back his peppermint.

Second, the financing of farmers' holdings by the Middle West banks and the inauguration of cooperative marketing. The natural oil is both grown and distilled by farmers who until recently have been unable to withhold their oil from market for more than a short period. Lately, however, the banks have been loaning money on this oil, thus making it possible for the farmer to refrain from selling until the price comes somewhere near meeting his ideas. Eventually the bank notes must be paid, so if the buyers hold out long enough they can turn the tide in their favor.

Third, speculation and manipulation in the producing districts.

Inauguration of Cooperative Marketing

From the survey we read:

> **"Under an act of the Indiana legislature of 1925 a co-operative society was formed in South Bend. The farmers proposed to market their own holdings, something that they had never been able to do before. The St. Joseph Valley Mint Growers' Association was formed. Some three hundred of the eight hundred growers allied themselves into a non-compulsory non-pooling cooperative society. They secured the backing of the best banking institutions in South Bend and of a large banking concern in New York and paid cash to their members for their stored oil upon orders from consumers."**

But at this point the survey strays from the realm of fact, saying:

> **"They were late in the field, but their activities in buying and in holding meetings among the farmers, coupled with the increased imports of Japanese peppermint oil, broke down the flood gates of speculation and the 'corner' broke."**

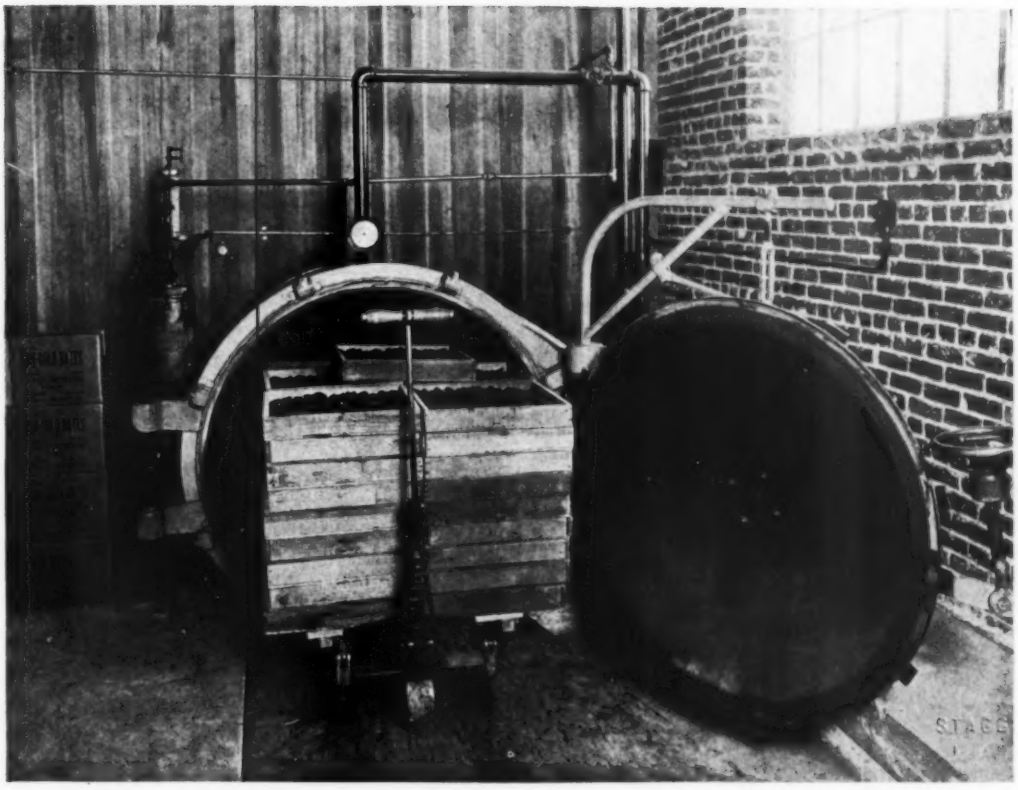
It may be remarked that the Mint Growers' Association had little or nothing to do with the break in prices. They were chiefly interested in "pulling" down some of the big money themselves.

What Broke the Corner?

The break came with the realization that in order to bring the market down there must be

(Continued on page 61)

The American Peppermint Belt



Control of Insect Infestation—Part 3

Vacuum and Gas Fumigation

for Confectioners' Raw Materials

by Norman W. Kempf

THE first article of this series discussed in a general way, the methods available for the sterilization of nutmeats and other raw materials subject to damage by insect pests. It is the purpose of this article to describe a successful method involving two of the principles considered in that article—vacuum and gas fumigation.

It will be remembered that the mere application of a vacuum is insufficient to cause sterilization, because the larva and pupa stage of the moth are really very low forms of life, and able to withstand extremely low or high pressures. However, the eggs of all insects, like those of the birds, contain a certain amount of air, needed for the existence of the insect before hatching. Therefore, exposure to a vacuum results in bursting of the egg, due to the pressure of this air, inside of the egg.

On the other hand, treatment with a poisonous gas at atmospheric pressures, involves danger to the operators, and is sometimes ineffective because of lack of penetration, it being necessary to spread the materials to be treated in thin layers to be assured of contact with the gas. By combining the two treatments, we insure penetration of the gas, because it must replace the air removed by the vacuum, and eliminate danger by placing suitable safeguards around the apparatus in which the fumigation is to be carried out.

Vacuum fumigation is not new, hydrocyanic acid having been used in this way for a decade or more for the fumigation of baled cotton. The application of this principle to the treatment

of foodstuffs, is largely the result of research work done by the California State Department of Agriculture. Dr. D. B. Mackie, Entomologist, Bureau of Plant Quarantine and Pest Control, made an intensive study of the pest control problem in that state, and has introduced many refinements in adapting vacuum fumigation to food products and nursery stock. The process has been in successful use in California for two years on a large part of the state's almond, walnut, date, and fig crop, and is also used in fumigating new potatoes, nursery stock, etc., when quarantine regulations forbid shipment over state or county lines.

The Equipment and Procedure Necessary

The apparatus required to carry out vacuum fumigation is not prohibitive in cost. The first essential is an airtight drum or chamber capable of withstanding atmospheric pressure, when evacuated to a 28 inch mercurial vacuum, and large enough to hold a unit charge required by your factory. Next, a continuous duty high vacuum pump, and some device for generating the gas for the fumigation. For economical operation, the drum should be provided with a large quick-opening door, to facilitate loading and unloading. The vacuum pump should have capacity sufficient to evacuate the chamber in not more than 10 or 12 minutes. The device used to generate the lethal gas should be capable of producing the gas in not only a safe manner, but in as short a time as possible. Then the entire apparatus should be protected by every safeguard known to science, to eliminate danger to the operators and to those in adjoining rooms.

The procedure is as follows: the material to be fumigated, left in the original containers, is placed in the chamber, and the door shut and hermetically sealed. In the case of material packed in airtight metal cans, a hole must be punched in the can to permit egress of the air, and ingress of the gas. Then the air is pumped from the chamber until a vacuum of 28 inches is attained. Then the lethal gas is drawn into the chamber until the internal pressure due to the gas is almost the same or equal to atmospheric pressure. Nearly every material contains a certain amount of air; during the evacuation this air is drawn out, and replaced by the lethal gas when it is applied under pressure. In this way absolute penetration of the fumigant is assured. After sufficient exposure to secure a kill of all insect life present (generally 60 to 90 minutes), the lethal gas is pumped out of the chamber through a vent to the open air. When a 28-inch vacuum is again attained all but a trace of the active gas is removed. Then air is admitted, after which the door can be opened and the material taken out of the chamber *sterile*—but otherwise in its original condition, *with its flavor unimpaired.* There is no loss in weight due to shrinkage of the material.

Kind of Gases

There are two gases in use in this method of sterilization. If your apparatus is located in the open air under a shed, hydrocyanic acid may be used. However, there are certain dangers attending the handling of liquid hydrocyanic acid in cylinders, which make it advisable to consider the use of another gas. For indoor work, the use of chemically pure carbon bisulphide is preferable.

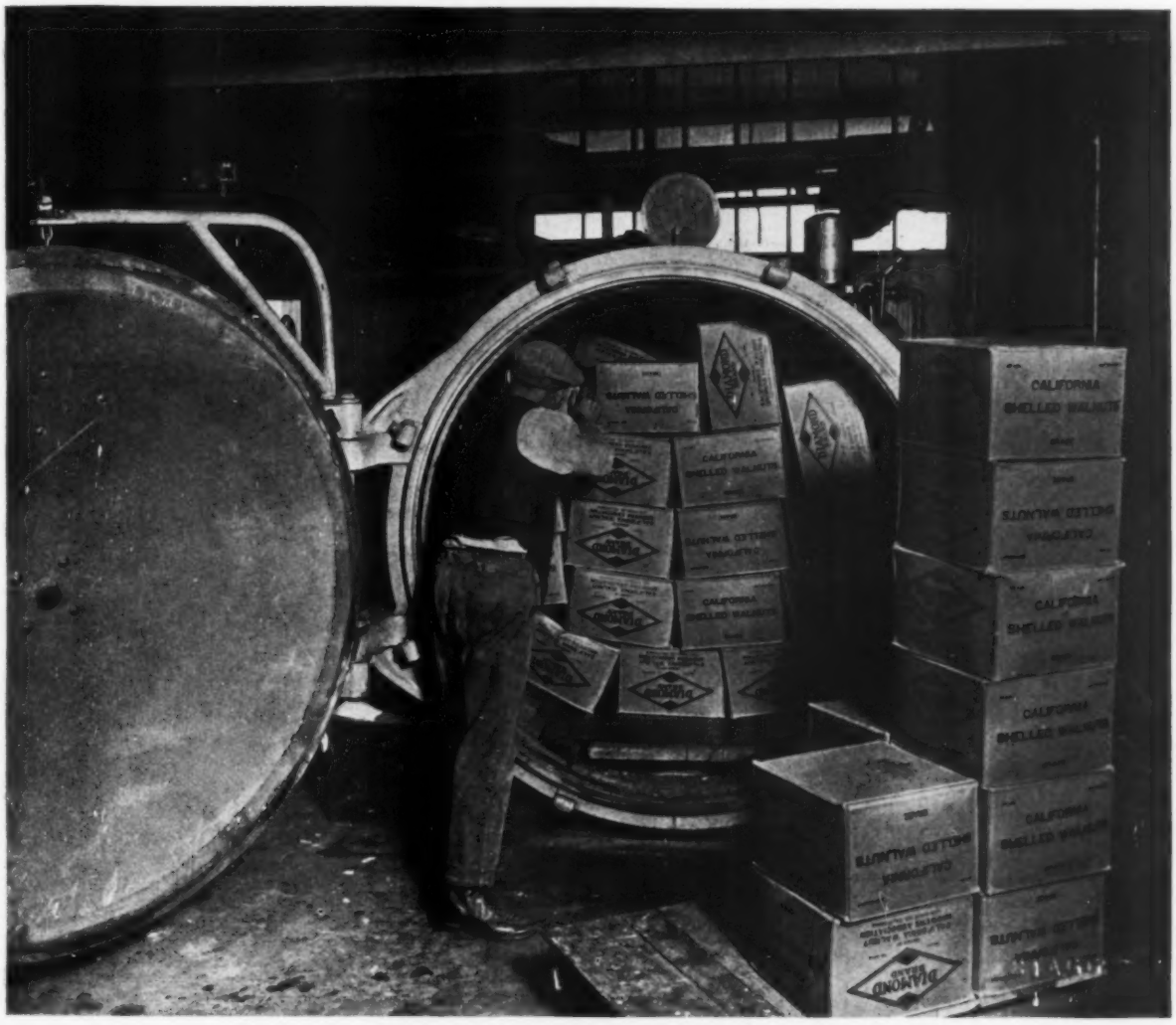
While technical carbon bisulphide is known for its very disagreeable odor, this condition is due to the impurities present. The chemically pure article has been freed from these, and possesses a mild, sweetish odor somewhat similar to that of chloroform. The liquid is easily changed to the vapor phase, as the boiling point is 46.2 degrees centigrade. The vapor is extremely toxic to insects in all forms, but not poisonous to human beings, although, of course, it will not support life, and cannot be breathed exclusively without suffocation. Because of its inflammability, it is necessary to use it mixed with an inert gas, like carbon dioxide, to render it non-inflammable. The presence of carbon dioxide does not interfere with the efficiency of the fumigation, but does provide a perfectly safe method of handling an otherwise dangerous gas. Thorough tests have been made on mixtures of these two gases to determine the explosive range.

The following table, giving various mixtures of the gases with remarks as to their inflammability, shows that it is perfectly feasible to handle the gases without danger, provided sufficient carbon dioxide is used. These tests were made under a vacuum of 27 inches, at a temperature ranging between 74 and 76 degrees Fahrenheit.

% CS_2	% CO_2	% Air	Explosive Reaction to Spark
9.97	0	90.03	Strong explosion
9.97	3.63	86.4	Strong explosion
9.97	7.26	82.77	Moderate explosion
9.97	10.09	79.06	Moderate explosion
9.97	14.6	75.43	Weak explosion
9.97	18.0	71.93	Weak explosion
9.97	21.8	68.23	Weak explosion
9.97	25.5	64.53	Very weak explosion
9.97	29.1	60.93	Very weak explosion
9.97	32.7	57.33	Very weak explosion
9.97	36.4	54.37	No explosion
9.97	54.5	35.52	No explosion
*9.97	80.33	10.0	No explosion (flame plunged into mixture was extinguished)

*The last mixture tested (80% CO_2) is the one used in fumigation.

Suitable apparatus has been designed to give a mixture containing 80 per cent carbon dioxide



Sterilizing Shelled Nuts by "Vacuum Fumigation" Method Recently Developed

and 10 per cent carbon disulphide. The other 10 per cent represents the air left in the chamber after a 27-inch vacuum has been drawn. Such apparatus can be provided with ample safeguards, so that it can be handled by non-technical help.

If carbon disulphide is used as the lethal gas, it becomes possible to sterilize your finished product after it is packed (but not wrapped) without harm, or odor being left in it. This method provides absolute protection against wormy candy, as once the finished package has been sterilized and wrapped, reinfection is impossible until the wrapper is removed by the customer and the box opened.

The cost of sterilization by this process is nominal. Exact figures are hard to give, as the cost will vary with local labor conditions and prices of the gases. There is no loss due to shrinkage of the material treated, as any moisture evaporated during the vacuum treatment is absorbed again on the admission of air.

The development of vacuum fumigation places in the hands of the manufacturing confectioner a weapon against insect infection which he cannot afford to neglect. Within a few years it should be possible to eliminate this ancient bugbear from our industry—a notable step in the right direction.

This publication will be glad to assist manufacturers interested in investigating this process by recommending the names of firms building apparatus to carry it out.

Monthly Review of
Current Technical Literature

of direct or indirect relationship to the confectionery industry

THE chemical press and other scientific literature of America, also of Germany, France, England, Italy and other foreign countries, contains from time to time some discussions which have an important bearing on the technical phases of the confectionery industry. The reliable scientific publications of the world are being searched each month for this material which will hereafter be digested and presented in the following form in this publication. If desired, we are in position to furnish full text and translations at clerical cost of such work.
—EDITOR.

A New Process for Preserving Fruits. By J. G. Magaw and A. S. Magaw. U. S. Patent 1,564,599. Fruits and berries are preserved without the addition of water by adding dextrose to them and subjecting the mixture to a freezing temperature.

A Chocolate Flavored Milk Beverage. By S. J. Davis. U. S. Patent 1,563,020. A mixture of milk, sugar, and chocolate is heated to about 70° for fifteen minutes, homogenized at about the same temperature under 2000 lbs. pressure per square inch and sterilized.

Process for Bleaching Chocolate. By J. B. Barnitt. U. S. Patent 1,563,682. Ground, roasted cacao nib from which the cacao butter has been extracted is treated with a slightly alkali solution of hydrogen peroxide.

Adulteration of Oil of Limes. Anon. Parfumerie Moderne. V. 18, P. 254. Distilled oil of lime is adulterated with terpenes obtained as a by-product in the production of terpineless oil of limes and sometimes also with the terpenes of oil of lemon. Five samples of oil of lime adulterated in this way had an optical rotation of .856 to .858. They gave only about half the normal yield of terpeneless oil.

Adulteration of Marmalades. A. Labo. Riv. Ital. Ess. Profum. V. 8, Jan. 15. A discussion of the commoner forms of adulteration and detection.

Fruit Confection. W. S. Pierce. United States Patent 1,556,572. The juice and pulp of oranges or other fruits are evaporated together, in a vacuum, to a syrupy consistency. Sugar is impregnated with the essential oil of the fruit. This oil-impregnated sugar is added to the evaporated material, and the evaporation is continued to obtain a dry product.

Bleaching Nuts. A. W. Christie. United States Patent 1,558,963. Walnuts or other nuts are immersed in a solution from which nascent chlorine is being liberated and then in a solution of sulphur dioxide.

Apparatus for Dehydrating Fruits, Etc. A. W. Parker. U. S. Patent 1,560,305.

Essential Oil Fellowship. From "Science," April 2, 1926. The Lehn & Fink Products Company of New York have established at Columbia University a research fellowship for the investigation of problems in the field of essential oils and related products. The work is to be carried out in the Organic Laboratory under the direction of Prof. Marston T. Bogert.

Differentiating Between Honey and Artificial Honey. By Wilhelm Muller. Mitt. Lebensm. Hyg. V. 16, p. 198-200. The method of Auerbach and Bodlander is described and the results of analysis of fifty samples of honey are given and tabulated.

The Testing and Judging of Dessicated Eggs in Regard to Spoilage. By A. Schmid. Mitt Lebensm. Hyg. V. 16, p. 137-43. Egg powders having an acidity (determined according to the Kottsdorfer method) of over 40, are considered to be unfit for consumption. Danger of poison through bacterial action need not be feared as the moisture content is usually rather low, between 4 and 6 per cent and at most 8 per cent. Schmid recommends, besides the determination of total fat and albumin, a determination of soluble albumin. A high acidity is the first and most important indication of decomposition and should not be allowed in products to be used for food purposes.

Cacao Beans and Cacao Products. By Heinrich Finke. Z. Nahr. Genussm. V. 50, p. 205-20. Numerous analyses of cacao beans and various cacao products are presented and discussed. Adulteration of cacao butter with the fat of the shells or embryo are detected by a method described in this article.

The Dispersion of Powdered Egg Yolk. Rosalie M. Cobb and F. S. Hunt. The journal of the American Leather Chemists Assn. V. 21, p. 18-22. Powdered egg yolk may be worked up into an emulsion with water as good as that of liquid egg yolk, provided a little alkali is incorporated. The use of an alkali preservative for powdered egg yolk is suggested.

Directory of Exhibitors to the Confectionery Manufacturing Trade

See Diagram of Floor Plan of Exposition Pages 20 and 21

AMERICAN CAN COMPANY (Booth Nos. 92, 93, 94, Ball Room, Center). Exhibiting decorated metal packages, including new line of oblong hinge cover gift boxes. In attendance: Mr. George A. Fisher, Assistant General Sales Manager, assisted by Mr. Edmund Hoffman, Sr., Mr. Edmund Hoffman, Jr., Mr. H. G. Edwards, Mr. C. C. Boone, and Mr. H. E. Dygert of the Chicago branch.

ANNHEUSER-BUSCH, INC., St. Louis **(No. 54 Exhibition Hall).** Corn products.

ALUMINUM COMPANY OF AMERICA, New Kensington, Penna. **(Booth Nos. 33, 34, 35, 36, Exhibition Hall).** Exhibiting aluminum foils for wrapping confections of all kinds. Aluminum paint suitable for covering interiors of plants, steel work, tanks, etc. A recently perfected aluminum cap applied hermetically to glass bottles for keeping hard candies in vacuum. In attendance: D. H. Tilson, F. S. Lally, E. A. Williams, J. E. Sharp, E. O. Vogelsanger and E. J. Mejia.

ASSOCIATED WOODENWARE MANUFACTURERS (No. 131, Mezzanine, Center). Wood candy pails.

ATLANTIC GELATINE COMPANY, Woburn, Mass. **(Booth No. 95, Ball Room).** Pure Food Gelatine. In attendance: Mr. A. C. Bernard, Mr. W. T. Turner of the New York office, Mr. Wallace H. Jose of New England, Mr. Joseph H. Cohen, vice president and general manager, and Mr. David C. Babcock, general sales manager.

BEECH-NUT FOIL COMPANY, Brooklyn, N. Y. **(Booth No. 158, Mezzanine, North).**

WM. M. BELL CO., Chicago. (Booth No. 151, Mezzanine, North.) Exhibiting "Bell's Black Walnut Flavor," especially for Chips, Puffs, Fudges, etc.

BENDIX PAPER COMPANY, New York City. (Booth 86 and 87, Ballroom, North.)

BENTZ ENGINEERING CORP., NEWARK, N. J. (Booth Nos. 21, 22, Exhibition Hall, Center.) Exhibiting a Bentz standard Starch Dry Room set up with windows in it to admit light. This room will be conditioned by a small Bentz "Chillblast" mounted on top of several "Coldbed" sections. The York Refrigerating Co. will place one of their small units in a booth adjoining and will supply Carbon Anhydried to the "Chillblast," thus making a practical demonstration of the Bentz Air Conditioning equipment by maintaining a temperature of about 70 degrees in this dry room with about 50 per cent relative humidity. A small model of the new Bentz Crystallizing unit will also be shown. (The Bentz folk say they hope the weather will be as hot as convention week last year at Boston—the rest of us don't, unless they "condition" the whole hotel.) In attendance: A. G. Luders, Vice President; Will D Slagle, Western Representative; R. P. Rasmussen, Chicago Office. Mr. W. E. Lowell, Western Manager, will be attending the Biscuit and Cracker Manufacturers' Convention at Los Angeles the same week.

GEORGE L. BETTS COMPANY, Chicago. (Booth No. 55, Exhibition Hall, West.)

BLANKE-BAER EXTRACT & PRESERVING CO., St. Louis, Mo. (Booth No. 122, Mezzanine, Center.) Exhibiting full line of Dipping Fruits and Extracts used by the confectionery trade. In attendance: Dr. S. H. Baer, Miller Winston, W. H. Sullivan, James Flanagan, J. S. May, C. H. Westaway.

BLUMENTHAL BROS., Philadelphia. (Nos. 128 and 137, Mezzanine.)

M. A. BROWN PAPER BOX CO., St. Louis, Mo. (Nos. 120 and 121, Mezzanine.) Exhibiting: Fancy Candy Boxes suitable for the manufacturing and retail confectionery trade. In attendance: Samuel Brown and Fred E. S'Renco.

BRUNHOFF MANUFACTURING CO., Cincinnati, Ohio. (No. 39, Exhibition Hall, West.) Exhibiting new styles of display racks and other kinds of display fixtures. In attendance: Edward Brunhoff, Sr., President; H. E. Brunhoff and Mr. Wydman, Midwest Representative.

BUCKBEE-BREHM COMPANY, Minneapolis, Minn. (No. 134, Mezzanine.) Exhibiting framed mottoes for Christmas and Mother's Day in sizes adapted to candy box tops. Also motto calendars, hands, cards, etc., created especially for confectionery packages, the sentiments of the lighter items being "written around candy" with the idea of enhancing the popularity of candy as a gift suited to all occasions. In attendance: Edward W. Brehm, Managing Director; G. H. Knowles and H. F. Hine, Sales Representatives, and W. A. Frisbie, Head of the Creative Department.

B. H. BUNN COMPANY, Chicago. (No. 90, Ball Room, Center.) Exhibiting the Bunn Turntable Tying Machine. In attendance: Mr. B. H. Bunn, Mr. H. E. Bunn, Mr. R. N. Bunn and Mr. J. G. Peters.

CANDY & CHOCOLATE EQUIPMENT CO., New York City. (No. 32, Exhibition Hall, Front, Left.) Exhibiting Gaebel Plastic Automatic, Batch Spinner and Sirocco roaster, cleaner and cooler. Also Max Armbruster's line of fancy boxes and embossed labels. In attendance: V. O. Hermann, Alex Hart, Jr.

CARRIER ENGINEERING CORP., Newark, N. J. (No. 49, Exhibition Hall, Left.) Exhibiting a model of a newly developed dryer for drying starch, marshmallows, gum drops, chicle, etc. Also photographs of the new Carrier Centrifugal Refrigeration System. In attendance: Mr. E. Nesdahl of the Chicago office and Mr. W. A. Borneman of the Philadelphia office.

CARTER, RICE & CO., Boston, Mass. (No. 157, Mezzanine.) Exhibiting confectioner's papers and paper specialties.

H. D. CATTY & COMPANY, New York and Chicago. (No. 125, Mezzanine.) Exhibiting DuPont Cellophane, Aluminum Foil Gold Cord, Gold and Silver Ribbon, Wattolyn, Imported Fancy Papers. In attendance: L. Persenico and W. R. Ederer.

Directory of Exhibitors—Continued

CLINTON CORN SYRUP REFINING CO., Clinton, Iowa. (No. 59, Ball Room, North.) Manufacturers of corn syrup, corn starches and corn sugars. In attendance: Mr. W. R. Smith, General Manager; Dr. A. P. Bryant, Manager of Operations, and Messrs. G. E. Corson and R. C. Jones, Chemists.

CONTINENTAL PAPER & BAG MILLS CORP., New York City. (No. 105, Ball Room.) Exhibiting regular line of glassine bags, candy bags, wrapping paper and paper napkins. Also New Pack Glassine Tubes for the packing of bar goods. They will also feature handmade satchel bottom bags, which particularly lend themselves to display purposes. Miss Eleanor Bloom of the New York office will be in charge, assisted by the representatives of their Chicago office.

CRESCENT MANUFACTURING CO., Seattle, Wash. (No. 129, Mezzanine, Center.) Exhibiting "Mapleine." Mr. E. G. Hamel of Chicago office in charge.

CRYSTAL GELATINE CO., Boston, Mass. (No. 51, Exhibition Hall, West.) Mr. G. W. Gethro, in charge.

DONALD F. DUNCAN, INC., Chicago. (No. 148, Mezzanine.) Exhibiting wood novelty containers. In attendance: Mr. Donald F. Duncan, President; Mr. E. H. Bergin, Mr. E. G. Gordon, Mr. E. T. Peterson.

THOS. W. DUNN COMPANY, New York City. (No. 47, Exhibition Hall, West.) Gelatine. Mr. F. E. Hollweg, in charge.

DUPONT CELLOPHANE COMPANY, Wilmington, Del. (No. 106, Ball Room, Center.)

ELDER & ROBINSON, Chicago. (Nos. 8, 9 and 10, Exhibition Hall, Right Center.) Exhibiting E & R Plastic Candy Maker. Mr. Earl B. Elder in charge.

EPPELSHEIMER & COMPANY, New York City. (No. 156, Mezzanine.) Exhibiting complete line of over 3,000 designs of molds for making chocolate bars, cakes and fancy goods, and double molds for making hollow chocolate figures—designs suitable for all of the holidays. Also a new machine used to distribute the chocolate on the inside of the molds as it is cooling. In attendance: Mr. W. H. Warren, Mr. H. A. Shera and Mr. J. H. Kingsley.

ESSEX GELATINE COMPANY, Boston, Mass. (No. 61, Ball Room.) Featuring "SX" brands of Edible Gelatine, together with marshmallows and candy made by various candy manufacturers to show results obtained in its usage. In attendance: L. B. Esmond, Manager; R. E. MacFarland, A. G. Crowl and Werner W. Duecker, Research Chemist, Mellon Institute, in charge of research work on use of gelatine in confectionery.

FERGUSON & HAAS, INC., New York City. (No. 20, Exhibition Hall, Right Center.) Demonstrating a high speed Wax Paper Wrapping and Sealing Machine. In attendance: Mr. Edward Haas and Mr. A. B. Hull.

FINNELL SYSTEM, INC., Hannibal, Mo. (No. 117, Ballroom, Entrance.) Exhibiting Nos. 20, 17, 15 Scrubbing Machines, Nos. 6 and 4 Mop Trucks, No. 5 Mopping Machine and No. 10 Water Absorber, also the new model Finnell Household Electric Floor Scrubbing, Waxing and Polishing Machine.

THE FLEISCHMANN TRANSPORTATION CO., New York City. (No. 143, Mezzanine.) Exhibiting various types of balsa boxes for shipping.

FOOTE & JENKS, Jackson, Michigan. (No. 91, Ballroom, Center.) Exhibiting flavors and flavor concentrates built especially for the candy industry featuring "Vogue Maple." In attendance: C. H. Redding, Sales Manager; C. R. Foster, Vice President, and A. A. Koch.

THE FOXON COMPANY, Providence, R. I. (No. 161, Mezzanine.) Exhibiting stock designs in seasonal box wraps, box tops, ribbon slides and box bands for all the standard holidays and special candy buying seasons. Also new imported line of French box novelties selected from the recent fair at Vienna. In attendance: Mrs. Mildred Paul, Secretary and Sales Manager; Miss Grace A. White, Assistant Sales Manager, and Miss Katherine Rose, Chicago Sales Manager.

HARRY L. FRIEND, Boston, Mass. (No. 150, Mezzanine.) Exhibiting new Friend-Rex Cream Center Maker, and assortment of handrolled centers for bar and bulk goods produced with these improved models. Harry L. Friend, designer and manufacturer of the Rex machine, will be in charge.

H. GAMSE & BRO., Baltimore, Md. (No. 78, Ball Room.) Exhibiting candy box tops and wrappers, especially Christmas and Easter designs; also original designs not yet used. In attendance: Norman I. Loewenberg and Herman Gamse.

GENERAL ELECTRIC COMPANY, Schenectady, N. Y. (Nos. 101, 102 and 103, Ballroom.) Exhibiting motors, controls, heating units and Textolite gears. Mr. A. C. Kidder in charge.

GRAHAM BROTHERS, Detroit, Mich. Motor Trucks. (No. 14, Exhibition Hall.)

J. W. GREER CO., Cambridge, Mass. (Nos. 41, 42, 43 and 44, Exhibition Hall.) Exhibiting the Greer Coater Cooling Unit and the new Greer Chocolate Melting Kettle. In attendance: Mr. and Mrs. J. W. Greer, Mr. and Mrs. F. W. Greer, Mr. Alfred Martini.

HAUG & CO., New York. (No. 53, Exhibition Hall.)

IRA L. HENRY COMPANY, Watertown, Wis. (No. 145, Mezzanine, Center.) Exhibiting Heart-shaped boxes of all types and hand-made fancy boxes. In attendance: Mr. E. F. Goecke and N. T. Yeomans.

H. L. HILDRETH CO., Boston, Mass. (Booth No. 52, Exhibition Hall.) Exhibiting pulling machines.

HOBART MFG. CO., Troy, Ohio. (Booth No. 15, Exhibition Hall.)

A. HUHN MFG. CO., Minneapolis, Minn. (Booth No. 13, Exhibition Hall). Exhibiting the Huhn Continuous Starch Dryer and Cooler. In attendance: Mr. A. G. Huhn, Mr. A. F. Maday, Mr. A. W. Patzlaff.

HY-SIL MANUFACTURING CO., Revere, Mass. (No. 133, Mezzanine.) Exhibiting tinsel and novelty ribbons and tinsel cords for tying candy packages. Mr. B. Weld will be in charge.

IDEAL COCOA & CHOCOLATE COMPANY, Lititz, Penna. (No. 111, Ballroom.) Exhibiting chocolate coatings, liquors and cocoa powders. In attendance: Thos. Waddell, Sales Manager; C. F. Southward and G. D. Bitzer.

THE INTERNATIONAL COMPANY, Baltimore, Md. (No. 76, Ballroom, Center.) Raw materials, featuring "Velvet" dipping cherries.

KELLER-DORIAN PAPER CO., New York City. (No. 146, Mezzanine, Center.) Exhibiting fancy cover papers. In attendance: Mr. Elmer S. Moore and Mr. John Ducasse.

KEYSTONE FRUIT PRODUCTS CO., Hamilton, Ohio. (No. 50, Exhibition Hall.)

H. KOHNSTAMM & CO., Chicago. (Nos. 82 and 83, Ballroom.) Exhibiting Atlas Certified Colors, Genuine Fruit Extracts and Imitation Flavors. In attendance: Mr. E. G. Kohnstamm, President; Mr. Louis Wolff, Mr. Harold Weil, Mr. Hugo Pulver, Mr. A. C. Hassel, Mr. E. A. Pfeiffer and Mr. W. H. Nelson and Mr. George Verry.

PETER CAILLER, KOHLER COMPANY, New York City. (No. 108, Ballroom, Center.) Exhibiting Peter's Superlative Chocolate Coatings, also Peter and Nestle solid chocolate bars. In attendance: A. C. Ferry, J. H. Baker, R. E. Dempsey, J. R. Rice and Guy T. Jenkins, Manager, Coating and Cocoa Sales.

KNICKERBOCKER CASE CO., Chicago. (No. 109, Ball-room, Center.) Exhibiting salesmen's sample cases especially designed for displaying samples of confectionery.

FRED LAUER, Chicago. (No. 130, Mezzanine.) Exhibiting miniature cedar chests, featuring the "Plaquette." In attendance: Mr. Lauer and Mr. J. A. Ruskin.

LEHMAIER SCHWARTZ & CO., New York. (No. 151A, Mezzanine.) Foils.

Directory of Exhibitors—Continued

THE MANUFACTURING CONFECTIONER PUBLISHING CO., Chicago. (No. 163, near elevator lobby.) Exhibiting a review of Editorial program the past five years, arranging the subjects under classification of Technical, Purchasing and Sales Promotion. Also announcing program of accomplishments for the near future, which include the publishing of

"A Hand Book of Confectioners' Raw Materials," giving the history, physical properties, suggested specifications and points on buying, storing, handling of each material.

A comprehensive, practical, up-to-date book on **"Candy Cost Finding and Accounting."**

A **"Code of Cleanliness, Sanitation and Hygiene for the Manufacture and Handling of Confectionery,"** supplemented by a manual giving suggested methods of practice for maintaining proper standards of cleanliness and safeguarding the purity of candy—"the aristocrat of food products."

A feature of the exhibit will be the initial presentation of the design for a **"Purity Label"—a symbol of certification of candy which is made of pure materials, by clean processes and healthy workers**—to be attached to or appear on each individual wrapper or package put out by manufacturers who qualify for such certification. A plan for making sanitary surveys and inspections by competent, accredited sanitarians, and acquainting the general public with the significance of the "Purity Label," will also be presented. Also data of service to confectionery supply and equipment manufacturers in planning a successful selling campaign to manufacturing confectioners.

In attendance: Earl R. Allured, Editor-Publisher; I. K. Russell, Associate Editor; Carey P. McCord, M. D., of the Industrial Health Conservancy Laboratories; Prudence M. Walker, Circulation Manager; and Master James Walker Allured, Inspiration Extraordinary and Future Editor-in-Chief.

JAMES B. McKEAGE, Port Jervis, N. Y. (No. 38, Exhibition Hall, Center.) Exhibiting and demonstrating the "Forgrove" assorted chocolate foiling machines.

McGRAW PAPER BOX COMPANY, New York City. (No. 62, Ballroom.)

MID-WEST BOX COMPANY, Chicago. (No. 99, Exhibition Hall, Center.) Exhibiting Mid-West Corrugated fibreboard products, featuring shipping containers designed for confectioner's use.

THOS. MILLS & BRO., Philadelphia, Penna. (No. 25, Exhibition Hall, Center.) Confectioner's machinery.

MILWAUKEE PRINTING CO., Milwaukee, Wis. (Nos. 71 and 96, Ballroom). Exhibiting glassine wrappers, radio metal wrappers, spot gummed window strips, box wrappers, display cards, box glassine inserts, stay-up stickers, outdoor signs, counter displays and direct mail literature. In attendance: Messrs. W. Heller, R. Hanson, L. Zimmerman, C. Ackerman, Tom Smith, Chas. Ebert and Hugh Campbell.

MILWAUKEE PAPER BOX COMPANY, Milwaukee, Wis. (No. 81, Ballroom.)

NATIONAL ANILINE & CHEMICAL CO., New York City. (Nos. 23 and 24, Exhibition Hall.) Exhibiting "National" Certified Food Colors. Exhibit in charge of Dr. L. Matos, assisted by John Young of the New York office, F. W. Green, Dr. F. E. Beecher and other members of the Chicago office.

NATIONAL BUNDLE TYER COMPANY, Blissfield, Mich. (Nos. 140 and 141, Mezzanine.) Exhibiting and demonstrating the "Saxmayer" Bundle Tying Machines.

NATIONAL EQUIPMENT COMPANY, Springfield, Mass. (Nos. 26, 27, 28, 29 and 31, Exhibition Hall.) Exhibiting the 1926 model Enrober with attachments and also a chocolate kettle. In attendance: Frank H. Page, A. L. Bausman, Howard C. Baum, B. E. C. Gillette, Wm. G. Tucker, Ralph Dychacek, Frank S. Moulton and Kenneth B. Page.

NEWCRAFT COATING MACHINE CO., Springfield, Mass. (Nos. 45 and 46, Exhibition Hall.) Exhibiting the "Newcraft Coater."

THE NULOMOLINE COMPANY, New York City. (No. 154, Mezzanine.) Exhibiting Nulomoline and Convertit, together with samples of candy containing these products. In attendance: Miss T. M. Holicky and Mr. R. S. Taussig of their Chicago office, Messrs. Chas. Fahrenkamp and J. P. Booker of New York office.

OLD COLONY PACKING CO., Bridgewater, Mass. (No. 107, Ballroom). Exhibiting cranberries for dipping purposes.

ORCHARD PAPER CO., St. Louis, Mo. (No. 110, Ballroom.)

HENRY H. OTTENS CO., Philadelphia, Pa. (No. 84, Ballroom.)

PACKAGE MACHINERY CO., Springfield, Mass. (Nos. 112 and 113, Ballroom.) Exhibiting the "Sapal" foil wrapping machine, made in Lausanne, and a toffee wrapping machine. In attendance: George A. Mohlman, Vice President in charge of sales; Mr. H. L. Davis, Western Sales Manager; Mr. H. O. Fischer, Mechanical Engineer, and Mr. Roger L. Putnam.

PAPER SERVICE CO., Philadelphia, Pa. (No. 48, Exhibition Hall.) Box cover papers.

PENICK & FORD SALES CO., Cedar Rapids, Iowa. (No. 132, Mezzanine.) Exhibiting P & F corn products, syrups and molasses. In attendance: Mr. C. W. Blomhall, Manager Bulk Sales; Mr. L. G. Preston, Mr. D. P. O'Connor and Mr. G. C. Callerman.

PILLIOD LUMBER COMPANY, Swanton, Ohio. **(No. 1, Exhibition Hall, Entrance.)** Exhibiting: general line chests, novelty boxes and other novelty containers for confectionery, made of cedar and other woods, all of which have utility appeal. In attendance: T. J. Pilliod, Manager, A. B. Hill and Mr. L. Wittman.

RACINE CONFECTIONERS' MACHINERY CO., Racine, Wis. (Nos. 6 and 7, Exhibition Hall.)

READ MACHINERY CO., York, Penna. (No. 30, Exhibition Hall.) Exhibiting the Read three-speed candy beater, an extra heavy duty model machine for mixing, beating, whipping or creaming. Mr. W. E. Overacker, Candy Expert, in charge; Mr. P. D. Hendrickson and Mr. R. H. Lookingbill assisting.

REEVES PULLEY CO., Columbus, Ind. (No. 40, Exhibition Hall.) Exhibiting Reeves Variable Speed Transmission Unit which gives an infinite range of speeds between predetermined high and low limits without stopping the machine or interrupting production. Also a new improved type V-belt with split-splice block. Mr. R. F. Reeves in charge.

SAVAGE BROS. CO., Chicago. (Nos. 56, 57 and 58, Exhibition Hall). Exhibiting confectioners machinery and copper work. In attendance: Mr. R. J. Savage, Mr. George F. Savage, Mr. W. P. Halpin and Mr. W. H. Holman.

F. J. SCHLEICHER PAPER BOX CO., St. Louis, Mo. (Nos. 11 and 12, Exhibition Hall.) Featuring individual boxes designed for exclusive use by one manufacturer. Exhibit in charge of Mr. B. F. Fisher and the four Schleicher boys, Louis, Allen, Lawrence and Frank.

H. SCHULTZ & CO., Chicago. (No. 77, Ballroom.) Fancy paper boxes and counter display containers.

SEAMAN CONTAINER CORP., New York City. (No. 123, Mezzanine.) Exhibiting the new Seaman fiber candy pail and other fiber containers for packing and shipping candy.

SELF LOCKING CARTON CO., Chicago. (No. 75, Ballroom.)

THE SETHNESS COMPANY, Chicago. (Nos. 66, 67 and 68, Ballroom, West.) Exhibiting full line of "Cosco" products, including creams, fondants, caramel pastes, colors, marshmallow toppings, fruit plastics, bouquet flavors, vanillas, etc. In attendance: Mr. C. Henry Sethness, Ralph E. Sethness, Jacob DeVos, B. J. Kennedy and Fred J. Poth.

SHELLMAR PRODUCTS CO., Milwaukee, Wis. (No. 87, Ballroom.) Glassine wrappers.

Directory of Exhibitors—Continued

THE T. M. SHEPPARD CO., Chicago. (No. 142, Mezzanine.) Exhibiting and demonstrating the "Bostitch Fastener" with long arm for closing glassine bags and attaching them to display cards.

HAROLD A. SINCLAIR, New York City. (No. 65, Ballroom.) Exhibiting "Delft" Pure Food Gelatines. In attendance: Harold A. Sinclair, Messrs. Frank Z. Woods, H. Howland Sinclair, F. A. Crotty, H. P. Calvert.

THE SMITH SCALE COMPANY, Columbus, Ohio. (No. 139, Mezzanine.) Exhibiting complete line of "Exact Weight" Scales for the candy manufacturer. Mr. W. A. Scheuer, Manager of the Chicago office, will be in charge.

STADLER PHOTOGRAPHING CO., New York and Chicago. (No. 124, Mezzanine.)

A. E. STALEY MANUFACTURING CO., Decatur, Ill. (No. 144, Mezzanine, Center.) Corn Products. In attendance: A. E. Staley, President; E. K. Scheiter, R. M. Ives, Wm. H. Randolph, Jr., L. R. Dickinson, J. W. Hixson, James Sleigh.

WM. J. STANGE CO., Chicago. (Nos. 79 and 80, Ballroom). Exhibiting confectioner's colors and flavors, featuring special line for manufacturers of plastic candies.

NATHAN M. STONE COMPANY, Chicago. (No. 89, Ballroom.) Exhibiting the "Vanity" chest and new mottoes for Christmas, St. Valentine's and Mother's Day. Mr. D. Newman and Mr. Geo. J. French will be in charge.

SUGAR SANDING MACHINE COMPANY, Baltimore, Md. (No. 2, Exhibition Hall). Exhibiting new Sugar Sanding Machine. In attendance: Mr. Chas. Mahan, President; Miss Alice Mahan, Vice President.

SUN-MAID RAISIN GROWERS' ASSN., Fresno, Calif. (No. 63, Ballroom.) Featuring a new type of raisin candy made with Sun Maid raisons. Tested formulas will be available for gums, jellies, cast cream chocolates, hand rolled chocolates and bar candies. In attendance: J. M. Hill, Chicago office, and the three Sunland demonstrators: Ed. Buchanan, D. J. Watson, and Lewis Herspring—all practical candy men.

THE TOY KRAFT CO., Wooster, Ohio. (No. 104, Ballroom.) Exhibiting Toy Kraft Kandy Toys. Mr. Geo. Heisler will be in charge.

UNION CONFECTIONERY MACHINERY CO., New York City. (No. 60, Ballroom).

UNITED CHEMICAL & ORGANIC PRODUCTS CO., Chicago. (No. 88, Ballroom.) "UCOPCO" Gelatine. In attendance: Messrs. J. A. Hafner, Wm. M. Korf, J. J. Rawle, T. W. Harrigan, H. G. Coburn, C. S. Butterworth, F. Loeffler, M. H. Hayman and P. T. Storr.

UNITED STATES FOIL COMPANY, Louisville, Ky. (No. 64, Ballroom.) Exhibiting latest innovation and development in Master Metal Wrappers, Master Metal Cartons, Unifoil Box Wrappers and packages for the confectionery industry. In attendance: Mr. H. G. Hanks, Sales Manager; Mr. C. B. Knickern, Manager of the Container Division, and Mr. R. G. McKay, Chicago Representative.

UNIVERSAL CANDY & CHOCOLATE MACHINERY Co., Springfield, Mass. (No. 18 and 19, Exhibition Hall.) The "Universal" Coater. Ernest Merrow in charge.

VACUUM CANDY MACHINERY CO., Chicago. (No. 16 and 17, Exhibition Hall.) Exhibiting Simplex Vacuum Cookers, continuous cutting machines and Plastic Presses. In attendance: Mr. P. H. Schleuter, B. MacQueen, S. S. Whitehurst, M. L. Probstein and E. C. Moeller.

VANILLA LABORATORIES, INC., Rochester, N. Y. (No. 160, Mezzanine.) Exhibiting Pure Vanilla, Concentrates and Compounds. In attendance: Messrs. C. R. Phillips, F. P. Watts, W. J. Stewart and F. J. Minges.

J. WERNER & SONS, Rochester, N. Y. (Nos. 3, 4 and 5, Exhibition Hall.) Exhibiting Confectioners' Machinery. Arthur F. Miller of their New York office in charge.

WHITE-STOKES COMPANY, Chicago. (No. 149, Mezzanine.)

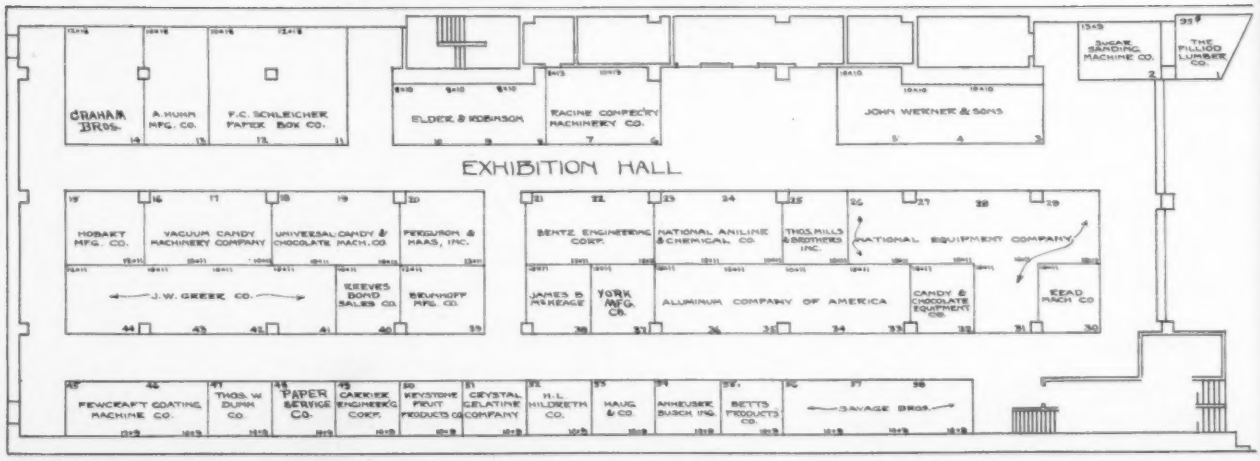
WHITE STAR IMPORT CO., New York City. (No. 163, Mezzanine.)

H. O. WILBUR & SONS, Philadelphia, Pa. (Nos. 114 and 115, Ballroom.) Exhibiting Wilbur's chocolate coatings and chocolate liquors, featuring their new Milk Coatings; they are also planning a surprise feature. In attendance: Dr. B. K. Wilburg, Mr. Rulon, Mr. S. H. Stayton, Mr. H. O. Stokes, A. W. Pierce and the sales force from Chicago office.

YORK MANUFACTURING CO., York, Penna. (No. 37, Exhibition Hall.) Demonstrating a "York" refrigerating unit.

Floor Plan of the N. C. A. Exposition

Exhibits No. 1 to 58 in the Exhibition Hall.
Exhibits No. 59 to 119 in the Ball Room
Exhibits No. 120 to 163 on the Mezzanine Floor Proper.



The above floor plan of the Exhibition Hall, which is located at the extreme north end of the Mezzanine floor of the Sherman Hotel, shows the layout of Booths No. 1 to 58, inclusive. Booths No. 59 to 119 are in the Ball Room, directly opposite on same floor. See diagram on opposite page.

Floor Plan of the M. C. A. Exposition

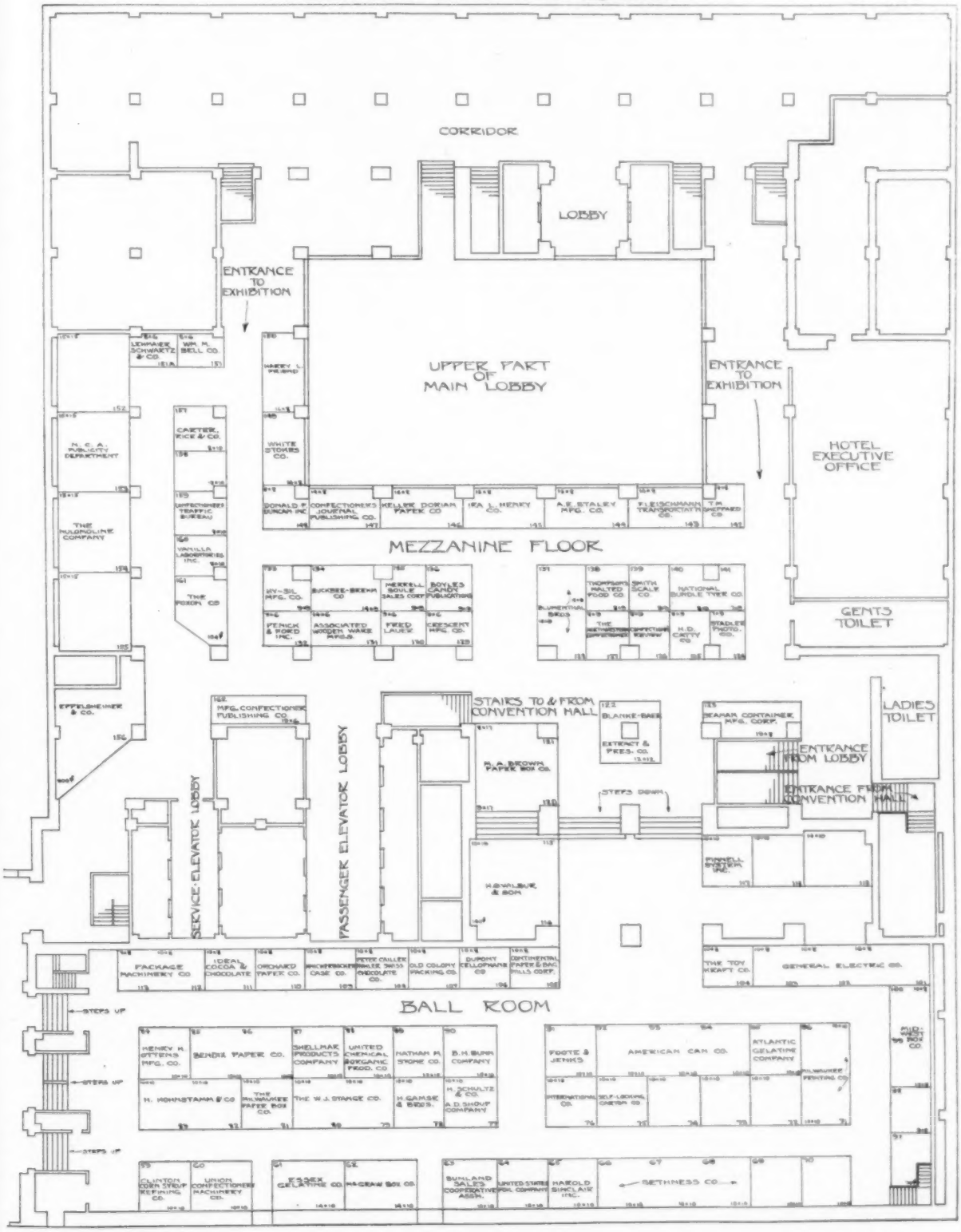


Exhibit Booths No. 59 to 119 in the Ball Room opposite the Exhibition Hall. Booths No. 120 to 162 on the Mezzanine floor proper, which is also opposite (to the east) the Ball Room, directly above the main lobby. See alphabetical directory of exhibtors on page 17.

The Program of the N. C. A. Convention

Co-operative Advertising Plan

THE most important matters to be taken up for consideration is the Co-operative Advertising and Educational Plan which has been given first place on the program after the formal forenoon session on Wednesday, May 26th. The forenoon session will be taken up with the President's address and the formal reports of the Secretary, Treasurer and Executive Committee.

For the afternoon session Mr. Harry Collins Spillman of New York City will be the keynoter or headline speaker on this important subject. Mr. Spillman has a national reputation as a forceful speaker on business problems such as Merchandising Campaigns and Co-operative Advertising.

He is exceptionally well qualified to give a rousing talk that will line up every member in attendance enthusiastically in favor of this big idea for the Candy Industry.

Following Mr. Spillman's address, the Plan itself will be presented by Mr. Harry R. Wilson of the Fisher, Brown Advertising Agency, St. Louis, Missouri, who will have complete charge of the details pertaining to putting the Plan into effect.

The entire afternoon will be devoted to the presentation and discussion of the Plan.

Control of Resale Prices

Another subject of paramount importance to the Industry is the legality of attempts to control resale prices. The legal phase of this question will be discussed by Mr. Colin C. H. Fyffe, General Counsel of the Illinois Manufacturers' Association, who will be the first speaker on the program on Thursday forenoon, May 27th.

Mr. Fyffe is considered to be one of the foremost legal authorities on this subject. He will be followed by speakers announced by the President, who will discuss:

"How Can the Manufacturer Effect This Control?"
"Does the Jobber Want This Control, and Why?"
"What is a Fair Profit for the Jobber?"
"What Support Will the Jobber Give the Manufacturer Who Supports Him?"

These speakers will be followed by a general discussion in which all who desire to do so, will have an opportunity to take part.

The entire forenoon session on Thursday will be devoted to this subject.

Group Meetings

The Candy Industry is becoming more and more complex, and the merchandising problems peculiar to one branch or division of the Industry are not of any special importance to the other branches or divisions.

It, therefore, seems advisable at this time to dispense with the regular session of the Convention on Thursday afternoon, and we have, therefore, arranged for group meetings of those members who are especially interested in the problems peculiar to their line of business.

The following group meetings will, therefore, be held on Thursday afternoon. A capable chairman has been selected and a definite program arranged for each group meeting:

Package Goods Manufacturers,
Bulk Goods Manufacturers,
Bar Goods Manufacturers,
Label and Wrapper Manufacturers.

Each group meeting will be called to order by the chairman of the meeting at 2:30 o'clock. The room in which each meeting will be held will be announced in the Official Program.

We hope our members will take full advantage of the opportunity which these group meetings will afford to freely and frankly and in a broadminded spirit discuss the serious questions and problems which are of such vital importance to the Industry at this time.

Many valuable suggestions from various members relative to the subjects to be discussed in these group meetings have been received which have been very helpful in arranging the program for each meeting.

Reports and Election

Friday forenoon, May 28th, will be devoted to the

Report of the Committee on Resolutions,
Report of the Nominating Committee,
Election of Officers and Members of the Executive Committee.

Reports received from various sections point to a very large attendance. This Convention will undoubtedly be one of the largest ever held by the Association.

You cannot afford to miss it!

See Entertainment Program on Page 61.

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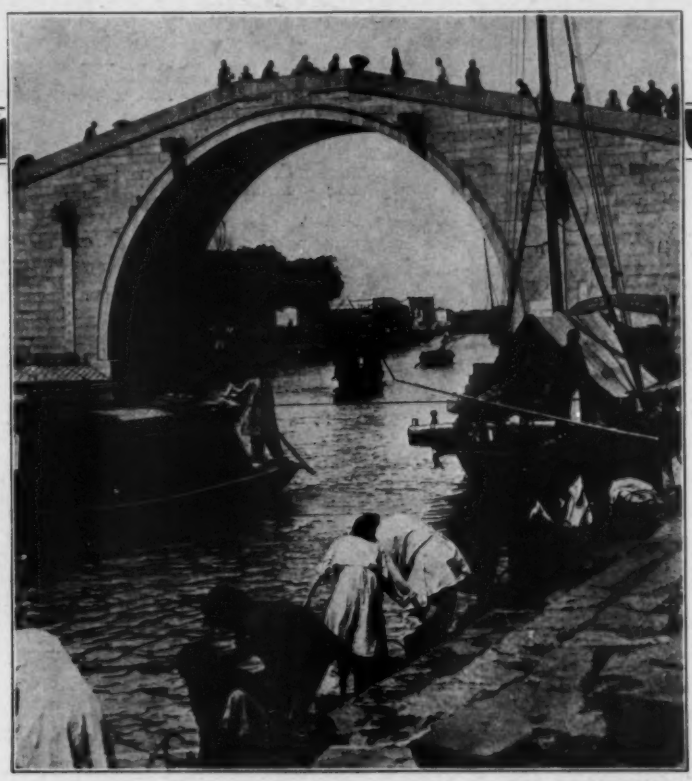


In far-away China this thin-arched bridge over the Grand Imperial Canal at Soo-Chow has long supported the endless stream of traffic—from slanteyed Celestials to heavy laden caravans—in safety.

The perfect arch insures its strength.

You Can Depend On Mid-West Boxes

The **high, strong, resilient arches** in the corrugated walls of Mid-West shipping boxes are notably superior to similar construction in ordinary containers because of their more pronounced resistance to sudden shock, vibration and weight. The consequent greater strength of all Mid-West "blue ribbon" products is so remarkable and uniform that many big shippers have standardized on these "better boxes."

The increasing use of Mid-West Boxes in your field is entirely due to their filling a need—
BETTER

Definite savings of thousands of dollars are credited to Mid-West shipping containers by many big shippers. Records prove it. Why not let us make an impartial and systematic survey of **your** shipping methods. Perhaps we can adapt our packages to your products with proportionate savings to you. If we cannot save you money we will quickly advise you of the fact.

Remember—Mid-West boxes are equipped with **highest test liners** and will pass the most rigid railroad requirements. Write us of your shipping problems. Let us help you solve them. Our long experience and close contact with shipping and containers are at your service without placing you under any obligation to us.

Write for our free illustrated "Perfect Package" book.

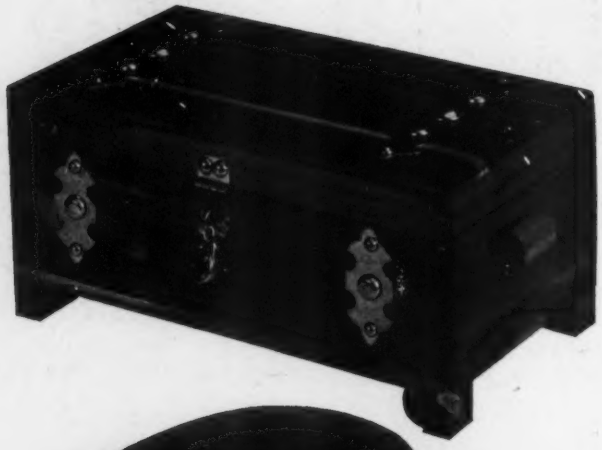
MID-WEST BOX COMPANY

GENERAL OFFICES
18th Floor, Room 51
CONWAY BLDG., CHICAGO

Corrugated Fibre
Board Products

FACTORIES
ANDERSON, INDIANA
KOKOMO, INDIANA
FAIRMONT, W. VA.
CIRCLEVILLE, OHIO
CHICAGO CLEVELAND, O.

There's a Sales Boosting Idea in Every Pilliod Container!



See the full line on display at Booth No. 1

(Near Entrance to Exhibition Hall)

YOU will find an assortment of candy containers which will be not only a sales stimulant — but a "tonic"—a genuine builder of sales vitality based on sound merchandising features which build profitable sales volume.

You will recognize in the Pilliod containers an opportunity to give your own package line an individuality and striking attractiveness so necessary for a successful sales campaign.

Mr. T. J. Pilliod, Manager, will especially welcome the opportunity of meeting sales executives of the candy industry at the N. C. A. Exposition and to have their co-operation in utilizing the facilities of our specialized plant for producing sales-compelling candy packages.

ART BOXES Pilliod

PILLIOD LUMBER CO.

Swanton, Ohio

The Pilliod Exhibit will be an inspiration to any sales executive and we hope to meet many candy manufacturers at this exposition. If you cannot attend, then let us send our illustrated literature and quotations.

The SEAMAN

Low in Cost—High Resale Value

Candy Containers

Superior Quality Candy Pails Produced by the Seaman Fibraknit Process

Fibraknit Candy Pail

Bailed and Wire Sealed. Capacity 30 Pounds.

Fibraknit Squat Candy Pail

Bailed and Wire Sealed. Capacity 15 Pounds.

PRODUCED by the Seaman Fibraknit Process, we are offering to the business world the safest, cleanest, most sanitary, economical and satisfactory container which has as yet been developed by any manufacturing process.

Fibraknit Products are unlike any other. The side walls and bottoms are produced from specially treated long fibred raw materials, woven and interwoven into a closely knitted mass, then moulded into the size and shape required by specially designed automatic machinery. This process yields a product of such wonderful texture as to give extraordinary strength from materials which are lighter in weight than those materials generally employed for similar purposes.

The moulded form is then subjected to processes which increase the tensile strength, seal the pores and insure a container that is moisture-proof, germ-proof and practically air-tight.

Outstanding features which distinguish this new container from all others are as follows:

1. Fibraknit Candy Pails are seamless and covers are so closely fitted as to make this package germ and ant proof, as well as almost air-tight.
2. Fibraknit Products have great strength. There are no seams to open—walls will not crush and damage from side collision so common to ordinary fibre and wooden pails is practically elliminated.
3. The Fibraknit Candy Pail is absolutely Thermos. It resists moisture to a remarkable degree, delivering products very susceptible to changes of temperature in perfect condition after a long freight journey, even across the continent.
4. The 30 lb. Fibraknit Candy Pail weighs about 3 lbs. The consequent saving in transportation charges will be interesting to large users of containers.
5. The bottoms of all Seaman Fibraknit Containers are reenforced with window glass wire. This is so imbedded in the structure as to insure a bottom and lower side walls that will withstand almost any load.
6. Fibraknit Candy Pails have great resale value, as they are lighter in weight than pails of equal capacity and of a quality insuring long and satisfactory service. For general use about the home, farm or factory, they are practically indestructible.
7. Fibraknit Candy Pails are furnished wire sealed and bailed.
8. Limitations as to the size and shape of containers are now ended, as we are prepared to supply any size or shape which may seem desirable. Our facilities are so flexible that we are able to develop designs of individuality. We invite inquiries on this subject.
9. We build a specially designed Fibraknit Container which will carry up to 60 pounds of soft candy in perfect condition. See illustration on opposite page indicating how merchandise is carried in 15 pound layers between bridges.
10. Its low first cost, its light weight which insures easy handling in the factory and lower transportation costs, its great strength which minimizes breakage and claims, combine to make this the most economical container on the market.

Our present plant capacity is 10,000 units per day. This may be quickly enlarged if necessary as we have a considerable acreage available, with side tracks and storage facilities for large quantities of raw materials and finished products. Our machine shops are capable of producing the necessary automatic machinery for making special sizes and shapes as may be required.

We invite correspondence with large users of candy pails, drums and other containers and will be very glad to submit samples on request.

Please address all correspondence to our general offices in New York.

SEAMAN CONTAINER MFG.

"The *eyes* have it"

Hardly a day passes that does not bring some story of new successes in the small unit candy business. Somebody conceives a new product—a new name—a new package, and suddenly the whole world seems to be buying that particular confection.

Most candy men are familiar with many such successes. Brunhoff follows them because of the part that Brunhoff point-of-sale-displays take in the selling program. For it is the point-of-sale-display which usually does the final job in putting a confection over with the public.

These candy units are bought largely on the spur of impulse. The bright package in the attractive display on the retail counter invites you to spend a nickel or a dime. *The eyes have it*—and the repeat orders come rolling home to the manufacturer.

In designing and making point-of-sale-displays the Brunhoff Manufacturing Company has specialized for some thirty-three years. Brunhoff has cooperated with the largest figures in the industry to put their products in the front rank displayed goods. And that also means in the front rank of volume sellers.

Send us your package and we will show you how to get volume out of it.

THE BRUNHOFF MANUFACTURING COMPANY, CINCINNATI
New York Office, 113 Maiden Lane

Brunhoff
point-of-sale-displays

1926

Huyler's "Colonial"
Candy Box

American Can Company

NEW YORK CHICAGO SAN FRANCISCO

TRADE CANCO MARK

If it appeals to Her—

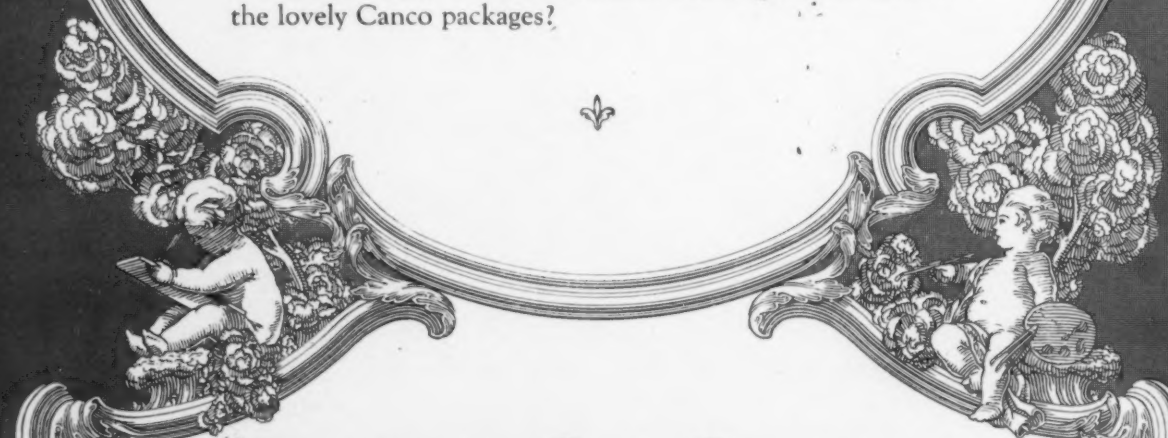
WHAT Milady wants she usually gets. Consider the rise of the closed car, how it has out-stripped the open style in spite of a heavy difference in price.

A decorated metal package is a fine closed body—for your confections. There is protection in it—and beauty—and distinction. Could candy be more acceptable than in a box such as that shown on the reverse of this page?

Such packages attract notice in the store—mothers, wives and sweethearts are delighted to get them—they bring your confections to the time and place of eating in the best possible condition.

* * *

DECORATED metal boxes have "come in"—just as closed cars did—because they appeal to women, and therefore to men. Is it any wonder customers order more and more of the lovely Canco packages?



American Can Company

NEW YORK CHICAGO SAN FRANCISCO

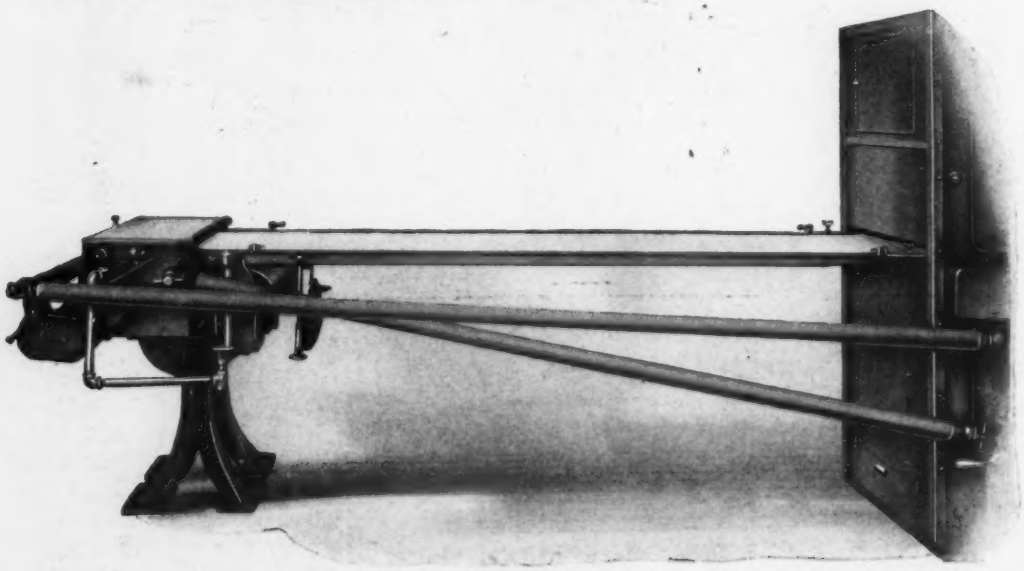
TRADE CANCO MARK

To insure — the lasting quality of your chocolates

Double coat the bottoms with this BOTTOMING ATTACHMENT on your ENROBER

THIS attachment insures a uniform, heavy coating on the bases of the centers by depositing a first bottom before they pass through the Enrober.

This gives you a firmer, better lasting and improved finished product. Investigate the advisability of adding this to your Enrober equipment. Write us today.



National Equipment Company

Largest Manufacturer in the World of Candy and Chocolate Machinery

Springfield, Massachusetts, U·S·A

At Booth No. 117

Sanitation—

from the floor up!

Cleanliness is not an incidental. In food product factories it is of prime importance. It is the essence of sanitation.

In mixing rooms, baking rooms, and shipping rooms, in offices and corridors, the FINNELL Electric Floor Machine is an invaluable aid to sanitation. It insures clean floors whether they are wood, tile, cement, linoleum or any other material.

It is virtually impossible to remove all the dirt from a floor by mopping. Hand scrubbing is hardly more likely to achieve complete cleanliness. But the FINNELL untiringly scours every crack and crevice, rinsing as it goes and leaving the floor clean.

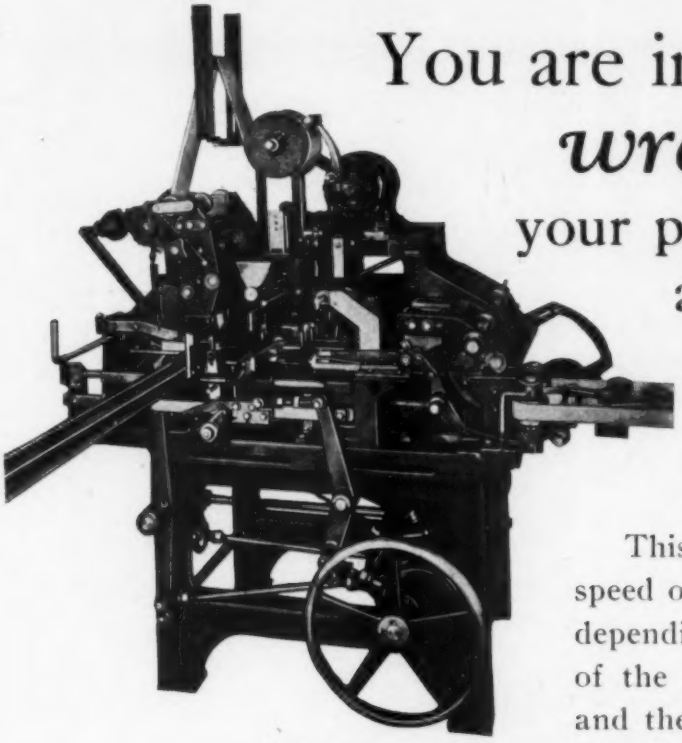
The same FINNELL that can scrub your work rooms clean, removing every bit of sticky glucose or chocolate, can go right into your office and polish the linoleum floor. An instant change of the brushes is all that is needed.

Write for free booklet "Your Questions Answered by Users." If you attend the convention, be sure to visit us at Booth No. 117.

FINNELL SYSTEM, Inc.
Established 1906
District Offices in Principal Cities
25 North Collier Street **Hannibal, Mo.**
Power Scrubbing Headquarters for Twenty Years

FINNELL

ELECTRIC FLOOR MACHINE
It Waxes \ It Polishes \ It Sands \ It Scrubs



Model S

You are interested in *wrapping* your packages neatly and securely at *minimum cost!*

This machine operates at a speed of 100 to 175 per minute, depending on the size and shape of the package to be wrapped and the character of the wrapper used.

When paper or other material that can be satisfactorily gummed is used for a wrapper, a gumming device is provided for end folds; also for longitudinal seam when required.

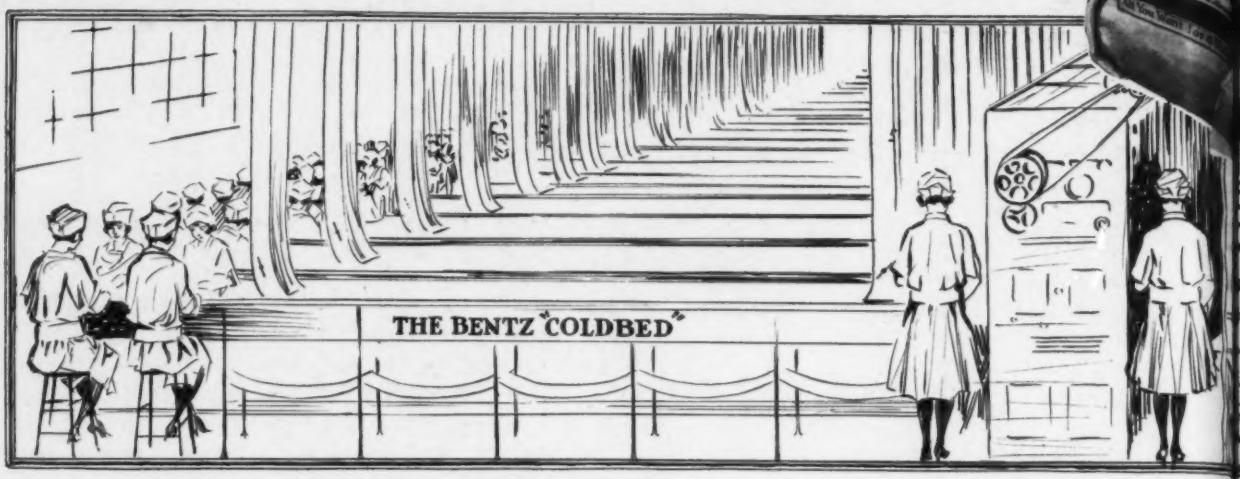
See the machine arranged for wax paper wrapping and heat sealing operating at Booth 20, National Confectioners' Exposition, Chicago

Other wrapping machines for different requirements
Send us samples and let us give you full particulars in regard to wrapping them

Ferguson & Haas, Inc.

515-521 Greenwich Street, New York City

22 BENTZ "COLD BEDS" Cooling Centers

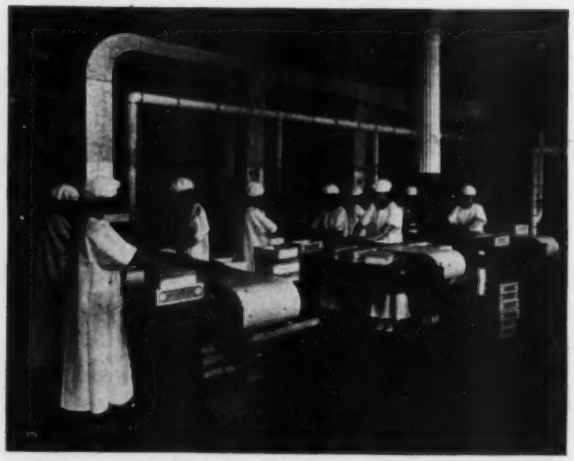


A total of 44 COLDBEDS

used in the cooling, coating and packing of over 2,000,000 "Baby Ruth" bars and a half million other Curtiss Candy Specialties

Per Day!

The idea of using "Coldbeds" to cool the centers before going through the enrober originated in the Curtiss plant. Another battery of "Coldbeds" at the other end of the cooling machine, cool and "set" the chocolate very rapidly, necessitating 20 girls (10 on each side) at the packing section of each unit.



Nearly 500 Coldbeds in Use

in the candy and biscuit industries of U. S. A.

Where we will demonstrate a Bentz **"Chillblast"** and exhibit the Bentz **"Coldbed,"** also the two latest successes in Bentz confectioners' equipment: **The Bentz Starch Dry Room** and the **Bentz Crystallizing unit.**

BENTZ ENGINEERING CORP.

661 Frelinghuysen Ave., Newark, N. J.

122 Greenwich St.
New York, N. Y.

123 West Madison St.
CHICAGO

Units No. 2, 3 and 4, Curtiss Candy Co., where 26 Coldbeds are installed.

OFFICE OF THE P
CURTISS CA
CHICAGO -

OTTO Y. SCHNERING
PRESIDENT

Bentz Engineering Corpor
123 West Madison Street,
Chicago, Illinois.

Gentlemen:-

About two years ago we
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our plant at 750 Brian
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This equipment gave
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Thanking you for
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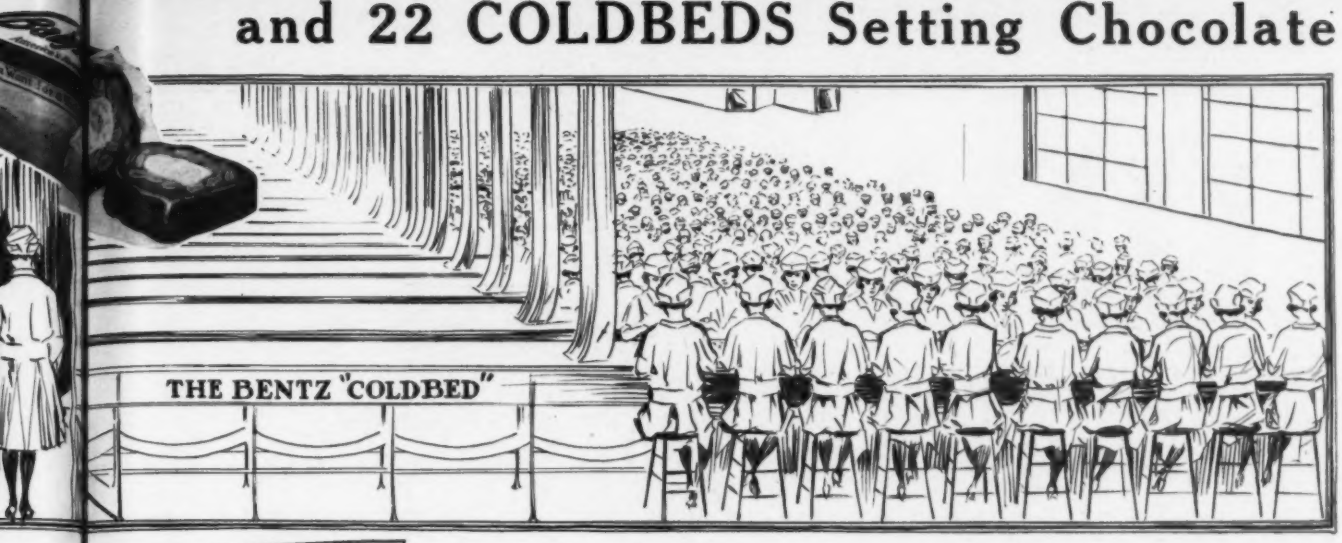
and 22 COLDBEDS Setting Chocolate



April 30, 1926.

first Bentz equip-
"CHILLBLASTS", in
a very careful
and air conditioning

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equipment for this
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cooling of our choco-
to the same amount of
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two plants six "CHILL-
of refrigeration.

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ions, we are,

Very truly yours,
CURTISS CANDY CO.
Otto Y. Schnering
PRESIDENT

Inasmuch as it is impossible to secure suitable photographs of the installation of Bentz equipment in the factories of Curtiss Candy Co., **the above composite sketch serves the purpose of illustrating the fact that 44 Bentz "Coldbeds" are in use in the coating and packing of "Baby Ruth"** and other Curtiss specialties—18 coldbeds in plant No. 1 at 750 Briar Place, and 26 coldbeds at 311 East Illinois St., Chicago.

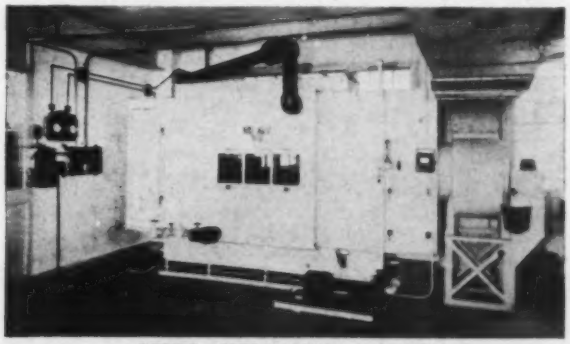
Bentz Engineering Service

THE tremendous success of the Bentz equipment for cooling chocolate coated goods lies in the fact that we have approached the confectioners' problems first from an engineering viewpoint.

The problem of controlling atmospheric conditions in the plant and extracting heat from the chocolate coating, after the goods are delivered from the coating machine, is essentially a job for professional refrigerating engineers (not machinists)—a highly technical problem requiring the same degree of specialized knowledge and experience as the art of candy making itself. Bentz engineers have solved this problem for confectioners in the development of the "COLDBED" (nearly 500 in use).

We are, first, engineers and, second, builders of equipment. We will make a survey of your manufacturing facilities and conditions and submit floor layouts, suggestions and estimates without cost or obligation. Bentz representatives respect the ethics of their profession—confidences are not betrayed.

Manufacturing confectioners who have taken us into their confidence and let us help work out their production problems have profited in great measure; their names—leaders in the candy industry—will be given on request.



BENTZ "CHILLBLAST" as Installed

Unit No. 1, Curtiss Candy Co., where 18 Coldbeds are in use.

UNION

Rebuilt Candy Machinery

ATTRACTIVE PRICES
RELIABILITY
PROMPT DELIVERY

All machines guaranteed to give you the same satisfaction and production as new ones.

Enrobers, Standard Springfield

Kihlgren Strokers
Automatic Nut Feeders
Bottoming Attachments
Automatic Shaker-Feeders
A. C. and D. C. Motor Drive
Short and Long Delivery Systems
Greer Cooling Systems

Ball Machines, Mills
All shapes and sizes of Rollers

Basket Dipping Machines, Walter, Racine

Brach Continuous Buttercup Cutter, with Conveying and Blowing System

Racine Continuous Buttercup Cutter, with Conveying and Blowing System

Chocolate Melting Kettles
150, 300, 500, 2,000 lbs.

Cocoanut Bon Bon Machine, Heilman, Mills

Cocoanut Grater, Mills

Cocoanut Toasting Outfit
With Racks and Toasting Ovens

Cream Beaters
Ball, 4 ft. and 5 ft.
Clad, Copper, 5 ft. motor attached
Werner, Little Wonder Cream Beater and Syrup Cooler, motor driven
Jacalucci Beater, Jacketed
Racine, Dillon Type

Cream Breaker
50-60-gal., underneath drive, Burkhard

Cream Remelter, Springfield, 50-gal.
Werner, 25-50 gal.

Caramel Cutters, Racine and White

Caramel Kettles, Tilting Type, Burkhard, 40-gal. capacity

Caramel Sizer
6 in. by 20 in. Racine, Reversible Mills, 6 in. by 18 in., Reversible Mills, 4 in. by 15 in., Table Type

Depositor, Springfield No. 2

Depositor, Chocolate, Springfield for fancy shapes

Depositor, Racine

Depositor, Werner, Interchangeable

Dough Mixers, Day, 1 and 2-barrel

Moguls, Steel and Wood

Drop Frames, Hand and Power
All shapes and sizes of rollers

Egg Beater, Read, Jaburg

Egg Beaters, Mills & Clad, Vertical

Electric Hand Dipping Pots and Tables

Enrober Boards

Fruit Grinders, Power, all sizes

Furnaces, 15 in., 18 in., 23 in., for natural and forced draft

Gluing Machine, Stokes and Smith

Jap Cutter, Shear Motion, Mills

Jap Cutters, Mills Patent Anderson

Jap Kettles, Burkhard, 40-gal., Mills

Kettles, for open fire, all sizes

Kettles, Cooking, Steam Jacketed, 80-gal. capacity

Lozenge Outfit, Complete

Marshmallow Beaters
40-gal. Day, tilting
20-gal. Day, tilting
40-gal. Westerman
50-gal. Springfield
Barrel Type, Racine

Mixing Kettles, Burkhard, 40-60-80-gallon
Double action, single action
Tilting and with outlet

Mogul Standard, Springfield
Steel and Wood

Mogul Pumps
12 to 30 outlet for wood Mogul
Double 40 pump for steel Mogul

Mould Boards

Paper Cutter, Large, Power

Paper Cutter, Double Corner, Knowlton

Peanut Roasters, Burns & Lambert
2 and 3-bag capacity

Printers, Hand and Power

Plastic Machine with Die and Sizer, Simplex

Racine Cup Separator

Revolving Pans
38 in., with and without coils

Savage Patent Tilting Kettle, Jacketed, double action, 25-gal.

Scales, Kron, 6,000 lbs., built in floor

Chocolate Machinery

Conge, 4 division, Springfield

Melangeur, 6 ft., Springfield

Chasers, 6 ft. and 7 ft., Springfield

3-Roll Refiner, 16-in. by 40-in. rolls, Springfield, Bauermeister

5-Roll Refiners, 16-in. by 40-in. Rolls, Springfield, Bauermeister

Refiners, Bausman

Electric Hand-Dipping Pots and Sugar Mill, Woodburn, Schultz-Springfield, Re

Dough Type Jacketed Mixing Machines, Read

Cocoanut Breaker, 16-in. Rolls, Lehmann

Roasting Machines, 5-bag, Burns

Cracker and Fanner, 6 compartments, Springfield

Sugar Mill, Woodburn, Schultz-O'Neil

Chocolate Tempering Machine
Springfield

Chocolate Bar Depositor, with nut attachment, Springfield

Chocolate Depositor
For fancy shapes, Springfield

Chocolate Moulding Machines, Lehmann

Shaking Tables, Lehmann

Sizing Machines, Hand and Power
Racine and Mills for balls, caramels, etc.

Slabs, Water Cooled, Collum, Mills
3 ft. by 6 ft. and 3 ft. by 8 ft.

Starch Boards

Starch Buck, Racine, National

Starch Cleaner, National Equipment

Sucker Machines, Automatic, Racine, long and short conveyor
All shapes and sizes of Rollers

Sugar Pulverizer, Schultz-O'Neil

Syrup Coolers, Werner, with Beaters, 500 lbs. and 800 lbs. capacity.

Wrapping Machines, Model "K" Kiss; Model "U-3" and "U-4" for 5-cent and 10-cent flat and almond bars

Ideal for Caramels, ¾ in. by ¾ in. by ⅜ in. to ¾ in.

Visit us at the N. C. A. Convention, Booth No. 60

Union Confectionery Machinery Co., Inc.

29-35 W. Houston Street, New York

Only the finest ingredients are used in the making of Peter's coatings

Why exacting candy manufacturers specify *Peter's Coatings*

FULL richness of flavor and dependable uniformity are the outstanding qualities of Peter's coatings.

Every cake of coating is stamped with the famous Peter trade mark to identify it as Peter's chocolate. And Peter's chocolate products are inimitable. There are none just as good.

The Peter line offers a variety of grades and flavors, meeting every requirement for better grade confectionery.

Place your contract *now* for fall business.

Peter Cailler Kohler Swiss Chocolates Co., Inc., 131 Hudson Street, New York City. Branch Sales Offices: 722 Nicholas Bldg., Toledo, Ohio, 431 So. Dearborn St., Chicago, Ill., 3620 Third Ave. So., Minneapolis, Minn.

Years of research and experiment in Europe and America by the most highly trained experts in the chocolate making industry have determined the formulas used for these superior coatings. And special methods of manufacture, known only to the Peter craftsmen, combine to produce the finer flavors that have greatly pleased candy manufacturers everywhere

At the Convention—

Stop in and rest at Booth 108 in the ballroom

"High as the Alps in Quality"

MILKS · VANILLAS · SWEETS · BITTER SWEETS · LIQUORS

PETER'S CHOCOLATE COATINGS

Atlas Certified Food Colors

ALL SHADES

Certified Combination Colors
Certified Primary Colors
Certified Paste Colors
Vegetable Dry Colors
Vegetable Paste Colors
Atlas Carmine No. 40

Atlas Flavors and Extracts

Genuine True Fruit Extracts
Imitation Fruit Flavors
Conc. Imitation Fruit Flavors
Pure Vanilla Extracts
Imitation Vanilla Flavors
Maple Flavors

We are the World's Largest Producers of

Carmine No. 40

Write for Samples and Prices

ATLAS BRAND
Colors and Flavors

The Priceless Ingredient

WHEN buying pure food colors and flavors consider first THE PRICELESS INGREDIENT—the HONOR and INTEGRITY of him who makes them.

The ATLAS LABEL on a package of food color or flavor is your guarantee of satisfaction. It represents the technical knowledge of skilled chemists—the perfection that comes only through long experience—the resources of a national organization—and the PRIDE of its manufacturers in establishing and maintaining the World's standard of quality.

H. KOHNSTAMM & CO., Inc.

First Producers of Certified Food Colors

NEW YORK
83-93 Park Place

CHICAGO
11-13 E. Illinois St.

ESTABLISHED 1851

Fact Finding Through Account Classification

An Interview by Ralph G. Wells with

J. Karl Mason

Treasurer, New England Confectionery Co., Boston

Every executive needs facts. Good accounting fills the need.

THE profits of industry result from an effective utilization of capital in the form of three major factors—equipment, material and labor. Such effective use depends upon the skill of the executive, his knowledge of conditions, his vision, his directive ability. Obviously, however, he must at all times know exactly what is going on in his business and whether the various divisions of the enterprise are functioning as they should. This knowledge to be accurate must be based upon facts alone; and the best sources of fact in any organization should be the accounts, recording as they do the ebb and flow of the life-blood of the enterprise—income and expenditure.

Many business men have but a limited conception of the use of accounting as an indicator of the economic trends of business and as an aid in developing the economic growth of the business. This is in major degree the fault of accounting methods themselves. Accounts when properly arranged form the most sensitive and the most accurate means of control that have yet been devised.

It follows, then, that the executive should make the greatest use of his accounting facilities, both as a source of information and knowledge and as a tool through which to control results. This means that his accounting methods must be so arranged that they will supply quickly, accurately and continuously all of the facts that the executive needs in making his decisions and in controlling the activities of business. An essential step in this direction is the accurate classification of accounts so that facts and figures will be properly grouped and correlated. It is essential also that the classification be in sufficient detail to enable the executive, through his assistants, to locate the exact source and cause of any changes or deviations from the established course.

Accounts should be more than columns of figures and records of finances. They should set forth salient facts in an interpretative manner. Logical classification and arrangement provide an accurate method of collecting the significant facts needed by an executive.

With this point in view, Mr. Mason made a very careful study of the classification of accounts for a manufacturing concern. The results of this study were printed in "Administration," published by the Ronald Press Company, New York. Through the courtesy of this company we are reproducing herewith a chart prepared by Mr. Mason showing the relationship of accounts and their classification, as well as a schedule of accounts.

It should be explained that the schedule shown below is purely hypothetical, serving merely as an illustration to show how a schedule should be worked out. In practice the details of a schedule must be arranged to fit the particular needs of the organization for which it is created.

SCHEDULE OF ACCOUNTS[1]

1 CAPITAL
11 WORKING CAPITAL
111 QUICK ASSETS
1111 CURRENT ASSETS
-1 Cash on Hand and in Banks
-11 General Funds in Banks
-12 Pay-Roll Funds
-13 Petty Cash Funds
-14 Funds in Transit
-2 Accounts Receivable
-21 On Open Account Terms
-22 On Trade Acceptance Terms
-23 On S. D. B. L. Terms
-24 On C. O. D. Terms
-3 Trade Acceptances Receivable
-4 Notes Receivable
-5 Royalties Receivable
-6 Advances to Employees
-7 Sundry Debtors
-71 Freight Claims in Action
-8 Accrued Interest Receivable
-9 Other Current Assets

1112 Inventories
-1 Materials in General Stores
-2 Labor Undistributed
-21 Shop Wages
-22 Weekly Salaries
-23 Monthly Salaries
-3 Charges Undistributed
-31 Insurance Prepaid
-32 Advertising and Publicity Prepaid
-33 Taxes Real and Personal Prepaid
-34 Interest Prepaid
-35 Rents Prepaid
-36 Royalties Prepaid
-37 Tool Expense Unabsorbed
-38
-39 Other Charges
-4 Work in Process
-41 Material Values
-42 Labor Values
-5 Materials in Sub-Stores
-6 Product in Warehouse
-7 Consigned Stocks in Distributor's Hands
-8 Unaudited Purchases
-9 Other Inventories

SCHEDULE OF ACCOUNTS—Continued

112 QUICK LIABILITIES
1121 Current Liabilities
-1 Salaries and Wages Payable
-11 Shop Wages Payable
-12 Weekly Salaries Payable
-13 Monthly Salaries Payable
-14 Unclaimed Wages and Salaries
-2 Accounts Payable
-21 Items Vouchered for Payment
-22 Items Unaudited due for Discount
-3 Trade Acceptances Payable
-4 Notes Payable
-41 Notes Payable for Borrowed Funds
-42 Notes Payable for Other Indebtedness
-5 Royalties Payable
-6 Unaudited Invoices
-7 Sundry Creditors
-71 Dealers' and Agents' Deposits
-72 Customers' Deposits
-8 Accrued Interest Payable
-81 Interest Payable on Notes
-82 Interest Payable on Mortgages
-83 Interest Payable on Funded Dept
-9 Other Current Liabilities

1122 Deferred Liabilities
-1 Commissions Accrued, not due
-2 Taxes Accrued, not due
-21 Real Estate Taxes
-22 Personal Taxes
-23 State Franchise Taxes
-24 Federal Income Taxes
-25 Federal Excess Profits Taxes
-26 Capital Stock Taxes
-27 Excise Taxes
-28
-29 Other Taxes
-3 Quantity Discounts Accrued, not due
-4 Rents Accrued, not due
-5 Dividends Accrued
-6
-7
-8
-9 Other Deferred Liabilities

12 FIXED CAPITAL

121 REAL ESTATE
1211 Land
1212 Land Improvements
1213 Land Leaseholds

122 BUILDINGS AND STRUCTURES
1221 Foundations, Walls, Floors, Partitions, etc.
1222 Heating Systems
1223 Lighting Systems
1224 Water Systems
1225 Sanitation Systems
1226 Ventilating Systems
1227 Fire and Sprinkler Systems
1228 Built-in Elevators
1229 Other Building Items

123 EQUIPMENT
1231 Power Generation Equipment
1232 Power Distribution Equipment
1233 Processing Equipment
1234 Tools, Dies, Jigs, etc.
1235 Conveying and Handling Equipment
1236 Storage Equipment
1237 Shop Fixtures
1238 Office and Laboratory Equipment
1239 Other Equipment

13 CAPITAL VARIANTS
131 Depletion of Capital (Reserves against)
1311 Depreciation of Fixed Capital
1312 Current Assets Uncollectible
1313 Adjustment of Inventory Values
1314 Contingencies
1315 Amortization of Funded Debts
132 Capital Accretion and Replenishment
1321 Increase in Sound Values of Real Estate
1322 Appreciation in Values of Buildings and Structures
1323 Appreciation in Values of Equipment
1324 Appreciation in Values of Inventories
1325 Replenishment Funds Appropriated to offset Depletion

14 FUNDED DEBTS
141 BOND ISSUES OUTSTANDING UNAMORTIZED
142 MORTGAGES UNAMORTIZED

15 OUTSIDE INVESTMENTS
151 STOCKS IN OTHER ACTIVITIES
152 BONDS OF OTHER ACTIVITIES

16 RELATIVE CAPITAL
161 GOOD-WILL
162 PATENT RIGHTS
163 LICENSES

2 INVESTMENT

21 CAPITAL STOCK
211 PREFERRED SHARES ISSUED
212 COMMON SHARES ISSUED

22 CAPITAL SURPLUS

23 PROFIT AND LOSS SURPLUS UNDISTRIBUTED

24 CURRENT OPERATING SURPLUS

241 SALES INVOICED
2411 Sales of Product
2412 Sales of Raw Material
1413 Sales of Scrap

242 DIRECT COSTS OF SALES
2421 Direct Costs of Product Sold
-1 Costs for Direct Materials
-2 Costs for Direct Labor
2422 Direct Costs of Raw Material Sold
-1 Costs for Direct Materials
-2 Costs for Direct Labor
2423 Direct Costs of Scrap Sold
-1 Costs for Direct Materials
-2 Costs for Direct Labor

243 OPERATING OVERHEAD
2431 Factory Administration
-1 General Factory Management
-11 Shop Executive Offices
-111 Materials and Supplies
-112 Salaries and Wages
-113 Other Charges
-12 Shop Idle Time
-121
-122 Salaries and Wages
-123
-13 Undistributed Factory Expense
-131 Materials and Supplies
-132 Salaries and Wages
-133 Other Charges

2431-2 Design of Product
-21 Engineering Office
-211 Materials and Supplies
-212 Salaries and Wages
-212 Other Charges
-22 Drafting-Room
-221 Materials and Supplies
-222 Salaries and Wages
-223 Other Charges
-23 Defective Design (Waste From)
-231 Materials and Supplies
-232 Salaries and Wages
-233 Other Charges

2431-3 Schedules and Deliveries
-31 Supervisor's Office
-311 Materials and Supplies
-312 Salaries and Wages
-313 Other Charges
-32 Timekeeping and Sub-Stores
-321 Materials and Supplies
-322 Salaries and Wages
-323 Other Charges
-33 Warehouse and Shipping-Room
-331 Materials and Supplies
-332 Salaries and Wages
-333 Other Charges
-34 Outward Traffic Department
-341 Materials and Supplies
-342 Salaries and Wages
-343 Other Charges

2431-4 Process and Fabrication
-41 Foremanship
-411 Material and Supplies
-412 Salaries and Wages
-413 Other Charges
-42 Shop Trucking and Elevation
-421 Materials and Supplies
-422 Salaries and Wages
-423 Other Charges
-43 Defective Manufacture (Waste From)
-431 Materials and Supplies
-432 Salaries and Wages
-433 Other Charges
-44 Direct Costs not Distributed to Product
-441 Direct Materials
-442 Direct Labor

2431-5 Selection and Maintenance of Equipment
-51 Master Mechanic's Office
-511 Materials and Supplies
-512 Salaries and Wages
-513 Other Charges
-52 Maintenance of Factory Buildings and Equipment
-521 Materials and Supplies
-522 Salaries and Wages
-523 Other Charges
-53 Removal and Reinstallation of Equipment
-531 Materials and Supplies
-532 Salaries and Wages
-533 Other Charges

2431-6— Generation and Distribution of Power
-61 Power Engineer's Office
-611 Materials and Supplies
-612 Salaries and Wages
-613 Other Charges
-62 Power Plant Operation
-621 Materials and Supplies (other than fuel)
-622 Salaries and Wages

(*Continued on page* 58)

Figure 1. Chart Showing the Relationship of Accounts and Structure Upon Which the Schedule of Accounts Is Built.

- 1—Capital
  - 1—Working Capital
    - 1—Quick Assets
      - 1—Current Assets
      - 2—Inventories
    - 2—Quick Liabilities
      - 1—Current Liabilities
      - 2—Deferred Liabilities
  - 2—Fixed Capital
    - 1—Real Estate
      - 1—Land
      - 2—Land Improvements
      - 3—Land Leaseholds
    - 2—Buildings and Structures
      - 1—Foundations, walls, floors, partitions, etc.
      - 2—Heating Systems
      - 3—Lighting Systems
      - 4—Water Systems
      - 5—Sanitation Systems
      - 6—Ventilating Systems
      - 7—Fire and Sprinkler System
      - 8—Built-in Elevators
      - 9—Other Building Items
    - 3—Equipment
      - 1—Power Generation Equipment
      - 2—Power Distribution Equipment
      - 3—Processing Equipment
      - 4—Tools, Dies, Jigs, etc.
      - 5—Conveying and Handling Equipment
      - 6—Storage Equipment
      - 7—Shop Fixtures
      - 8—Office and Laboratory Equipment
      - 9—Other Equipment
  - 3—Capital Variants
    - 1—Depletion of Capital
      - 1—Reserve against Depreciation of Fixed Capital
      - 2—Reserve against Current Assets Uncollectible
      - 3—Reserve against Adjustment of Inventory Values
      - 4—Reserve against Contingencies
      - 5—Reserve against Amortization of Funded Debts
    - 2—Capital Accretion and Replenishment
      - 1—Increase in Sound Values of Real Estate
      - 2—Appreciation in Values of Buildings and Structures
      - 3—Appreciation in Values of Equipment
      - 4—Appreciation in Values of Inventories
      - 5—Replenishment Funds Appropriated to Offset Depletion
  - 4—Funded Debts
    - 1—Bond Issues Outstanding Unamortized
    - 2—Mortgages Unamortized
  - 5—Outside Investments
    - 1—Stocks in Other Activities
    - 2—Bonds in Other Activities
  - 6—Relative Capital
    - 1—Good-Will
    - 2—Patent Rights
    - 3—Licenses

- 2—Investment
  - 1—Capital Stock
    - 1—Preferred Shares Issued
    - 2—Common Shares Issued
  - 2—Capital Surplus
  - 3—Profit and Loss Surplus Undistributed.
  - 4—Current Operating Surplus
    - 1—Sales Invoiced.
      - 1—Sales of Product
      - 2—Sales of Raw Material
      - 3—Sales of Scrap
    - 2—Direct Costs of Sales
      - 1—Direct Costs of Product Sold
      - 2—Direct Costs of Raw Material Sold
      - 3—Direct Costs of Scrap Sold
    - 3—Operating Overhead
      - 1—Factory Administration
      - 2—Sales Administration
      - 3—Financial Administration
      - 4—General Administration
    - 4—Executive Appropriations
      - 1—Protection against Depreciation of Fixed Capital
      - 2—Protection against Current Assets Uncollectible
      - 3—Protection against Decrease of Inventory Value
      - 4—Protection against Contingencies
    - 5—Income Variants
      - 1—Income Deductions
      - 2—Income Additions
    - 6—Profit Distribution.
      - 1—Government Taxes on Income
      - 2—Dividends to Shareholders

SCHEDULE OF ACCOUNTS—Continued

–623 Other Charges
–63 Fuel and Equivalents
–631 Fuel Consumed
–632
–633 Power Purchased

2431–7 Procurement and Storage of Materials
–71 Purchasing Office
–711 Materials and Supplies
–712 Salaries and Wages
–713 Other Charges
–72 Receiving and Storage Department
–721 Materials and Supplies
–722 Salaries and Wages
–723 Other Charges
–73 Inward Traffic Department
–731 Materials and Supplies
–732 Salaries and Wages
–733 Other Charges
–74 Defective Materials (Waste From)
–741 Materials and Supplies
–742 Salaries and Wages
–743 Other Charges

2431–8 Inspection of Workmanship and Product
–81 Chief Inspector's Office
–811 Materials and Supplies
–812 Salaries and Wages
–813 Other Charges
–82 Shop Inspection
–821 Materials and Supplies
–822 Salaries and Wages
–823 Other Charges
–83 Faulty Inspection (Waste From)
–831 Materials and Supplies
–822 Salaries and Wages
–833 Other Charges

2432 SALES ADMINISTRATION

2432–1 General Sales Management
–11 Sales Manager's Office
–111 Materials and Supplies
–112 Salaries and Wages
–113 Other Charges
–12 Sales Allowances to Customers
–121 Allowances for Business Policy
–122 Allowances for Breakage in transit
–13 Discounts Allowed
–131 Discounts under Payment Terms
–132 Discounts for Sales Quantities
–14 Transportation Allowed
–141 Transportation Allowed Under Sales Terms
–142 Transportation Excess by Delayed Shipment

2432–2 Field Sales Activities
–21 Salesmen and Inspectors
–211 Materials and Supplies
–212 Salaries and Wages
–213 Traveling Expenses and other Charges
–22 Service Department
–221 Materials and Supplies
–222 Salaries and Wages
–223 Other Charges

2432–3 Advertising and Publicity
–31 Advertising Department
–311 Materials and Supplies
–312 Salaries and Wages
–313 Other Charges
–32 Publicity
–321 Materials and Supplies
–322 Salaries and Wages
–323 Contracts, Cost of Space, Etc.
–4 Fees and Commissions
–5 Gratuitous Samples and Supplies
–6 Unclassified Sales Expenses

2433 FINANCIAL ADMINISTRATION

2433–1 General Financial Management
–11 Financial Executive Offices
–111 Materials and Supplies
–112 Salaries and Wages
–113 Other Charges
–12 General Accounting
–121 Materials and Supplies
–122 Salaries and Wages
–123 Other Charges
–13 Cashier and Pay-Roll Division
–131 Materials and Supplies
–132 Salaries and Wages
–133 Other Charges

2433–2 Audits and Statistics
–21 Audit of Income and Expenditure
–211 Materials and Supplies
–212 Salaries and Wages
–213 Other Charges
–22 Inventories Division
–221 Materials and Supplies
–222 Salaries and Wages
–223 Other Charges
–23 Tabulating Division
–231 Materials and Supplies
–232 Salaries and Wages
–233 Other Charges
–24 Statistical Division
–241 Materials and Supplies
–242 Salaries and Wages
–243 Other Charges

2433–3 Unclassified Financial Expenses

2434 GENERAL ADMINISTRATION

2434–1 General Executive Expenses
–11 Executive Offices
–111 Materials and Supplies
–112 Salaries and Wages
–113 Other Charges
–12 General Office Management
–121 Materials and Supplies
–122 Salaries and Wages
–123 Other Charges
–13 Legal Department
–131 Materials and Supplies
–132 Salaries and Wages
–133 Other Charges
–14 Miscellaneous General Office Expense
–141 Materials and Supplies
–142 Salaries and Wages
–143 Other Charges
–15 Estimates and Standards Division
–151 Materials and Supplies
–152 Salaries and Wages
–153 Other Charges

2434–2 Welfare and Protection
–21 Employment Department
–211 Materials and Supplies
–212 Salaries and Wages
–213 Other Charges
–22 Hospital
–221 Materials and Supplies
–222 Salaries and Wages
–223 Other Charges
–23 Safety and Sanitation
–231 Materials and Supplies
–232 Salaries and Wages
–233 Other Charges
–24 Watchman Service
–241 Materials and Supplies
–242 Salaries and Wages
–243 Other Charges
–25 Education and Athletics
–251 Materials and Supplies
–252 Salaries and Wages
–253 Other Charges

2434–3 Restaurant
–31 Income from Food Sales (This is a credit account.)
–32 Restaurant Expense (This is a debit account.)
–321 Materials and Supplies
–322 Salaries and Wages
–323 Other Charges

2434–4 Experimental and Development Work
–41 Engineering Office
–411 Materials and Supplies
–412 Salaries and Wages
–413 Other Charges
–42 Laboratory Expense
–421 Materials and Supplies
–422 Salaries and Wages
–423 Other Charges

2434–5 Bonuses and Awards

2434–6 Charities and Donations
–61 Gifts to Educational, Charitable, etc. Institutions
–62 Gifts to Other Recipients

2434–7 Fees, Assessments, Etc.
–71 Taxes, Real, Personal, and Franchise
–72 Insurance Premiums
–73 Leases and Rents
–74 Audits and Appraisals
–75 Royalties Payable
–76 Directors' Fees

2434–8 Transportation Costs Undistributed

2434–9 Unclassified General Expenses

244 EXECUTIVE APPROPRIATIONS
2441 For Protection against Depreciation of Fixed Capital
2442 For Protection against Current Assets Uncollectible
2443 For Protection against Decrease of Inventory Values
2444 For Protection against Contingencies

245 INCOME VARIANTS

2451 Income Deductions
–1 Unrealized Profit on Returned Sales
–11 Sales Value of Items Returned (This is a debit account.)
–12 Direct Costs of Items Returned
–121 Direct Materials
–122 Direct Labor
(These are credit accounts; contra entries to be debits against inventory accounts to which returned items are charged)

2451–2 Interest Payable
–21 Interest on Bonds Outstanding
–22 Interest on Notes Payable

SCHEDULE OF ACCOUNTS—Continued

-23 Interest on Trade Acceptances
-24 Interest on Mortgages
-25 Interest Payable on Overdue Accounts Payable
-3 Internal Revenue and Exchange on Checks, etc.

2452 Income Additions
-1 Cash Discounts Taken
-2 Interest Receivable
-21 Interest Receivable from Outside Investments
-22 Interest Receivable on Bank Balances
-23 Interest Receivable from Notes Receivable
-24 Interest Receivable from Trade Acceptances Taken
-25 Interest Receivable from Accounts Receivable
-3 Dividends Receivable
-4 Rents Receivable
-5 Royalties Receivable
-6 Bad Debts Recovered
-7 Scrap Returned from Process
-8 Reclaimed Materials
-81 Good Value of Materials Reclaimed
(This is a credit account; contra entries to be debits against inventory accounts to which reclaimed items are delivered)
-82 Costs of Reclamation
-821 Materials and Supplies (including scrap value of materials to be reclaimed)
-822 Salaries and Wages
-823 Other Charges
-9 Other Income Additions

246 PROFIT DISTRIBUTION
2461 Government Taxes on Income
-1 Federal Income Tax
-2 Federal Excess Profits Tax
-3 State Income Tax

2462 Dividends to Shareholders
-1 Dividends on Preferred Shares
-2 Dividends on Common Shares

(Note: The compilation of above Capital accounts results in a statement of Net Capital; the compilation of the Investment accounts delivers a statement of Present Worth of Investment.)

Summary

TO FACILITATE a proper appreciation of the foregoing chart and an understanding of the accounting fundamentals upon which it is based, we are repeating here in condensed form Mr. Mason's definitions which accompanied the charts when they first appeared:

"Manufacturing accounts may be assembled into two great groups; namely, capital and investment. Their net totals tell respectively the figures of capital goods owned by the concern and the present worth of shareholders' investment as represented by that capital. These are the ultimate facts sought by economic accounting. However, there are ten contributing facts to be considered:

1. *Working capital*—capital set apart for provision of goods and services and for the conduct of business. Technically it is the difference between the sums of quick assets and quick liabilities—so-called.
2. *Fixed capital*—the sum of values contained in real estate, in buildings, structures and equipment.
3. *Capital variants*—changes in the utilities of capital goods occasioned by chance, use or possession. Technically they are the reserves created to offset capital depletion, depreciation, etc.
4. *Funded debts*—liabilities in the nature of firm contracts for whose extinguishment there are set apart sinking funds out of earnings or capital. Technically, they include such items as bonds and mortgages payable, whose payment at maturity is insured by reserves created for the purpose.
5. *Outside investments*—comprise stocks and bonds of other concerns valued at purchase price.
6. *Relative capital*—so named because its capital value results chiefly from its association with physical capital. It includes good will, patent rights, licenses, etc.—of intangible value but nevertheles important to a going concern.

The six items so far defined constitute the major divisions of the capital group.

The investment group includes:

7. *Capital stock*—representing the respective shareholders' liens. Technically, it is the value of shares issued, figured at par or its equivalent.
8. *Capital surplus*—the value given to the increase in value of capital goods over their cost to the concern.
9. *Profit and loss surplus undistributed*—represents the residue from earnings of previous years allowed to remain invested for the use of the concern.
10. *Current operating surplus*—the residue from earnings of the current fiscal year after all expenditures, appropriations and distributions have been made from income. Technically, it is the net result of the figures ordinarily set forth as the profit and loss statement. Its total at the close of a fiscal year is transferred to profit and loss undistributed."

The foregoing classification conforms to fundamental accounting practices, but goes into much greater detail than is usual. All of the figures needed for statements and ordinary accounting are retained. Yet it will be found that this classification makes it easy to assemble facts and figures in any arrangement needed to show the economic situation of any division of the business or to indicate the relative effectiveness of any given department or activity.

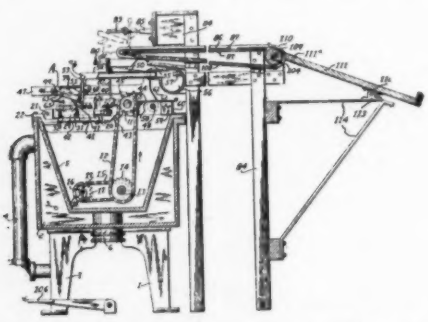
With such a system of accounts at hand, the executive is in strong position, so far as knowledge can help him, to meet competition, maintain profits, build for the future, insuring thus the permanency and stability of his enterprise.

WHAT'S NEW?

New Patents

1,578,465. Candy Coating and Decorating Machine. Angelo D. Panoulias, Jersey City, N. J., assignor, by mesne assignments, to Panayiotis D. Panoulias. Filed July 21, 1921. Serial No. 486,558. 32 Claims. (Cl. 91—3.)

12. A method of coating caramels or other confections with chocolate or other coating material consisting of introducing a row of confections into a horizontally flowing stream of coating material, vibrating said confections while immersed in the stream of coating material, vibrating the row of confections after withdrawal from the coating stream, and simultaneously projecting a current of air on said coated confections.

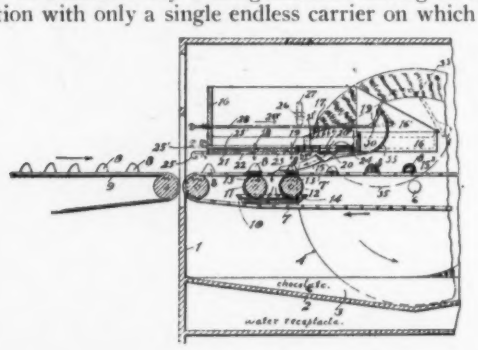


13. In a confectionery coating machine, the combination with the kettle, of a row of narrow endless elevator belts therein for raising the coating material

15. In a confectionery coating machine, a movable blower nozzle and means for moving the same across the coated confections.

1,582,644. Chocolate-Coating Machinery. George A. Dumas, Springfield, Mass., assignor of one-fourth to Herbert L. Handy, Sr., one-fourth to Herbert L. Handy, Jr., and one-fourth to Herman H. Handy, all of Springfield, Mass. Filed November 12, 1924. Serial No. 749,425. 11 Claims. (Cl. 91—3.)

1. A confectionery coating machine having in combination with only a single endless carrier on which the articles to be coated are placed when the coating takes place, a receptacle below the said carrier for receiving the coating material, means including grooved rollers for conveying the coating material to only the under surface of the article.



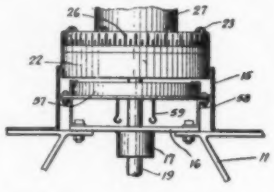
1,583,166. Manufacture of Candy and Confections. Julius J. Pawlas, Watsonville, Calif. Filed Mar. 20, 1922. Serial No. 545,018. 1 Claim. (Cl. 107—10.)

A mold for use in connection with the marking of candy beads or drops with a string passing therethrough, said mold comprising an elongated body, one end of said body being relatively wide as compared to its thickness and substantially wedge-shaped in longitudinal cross-section, the other end of said body being provided with a handle, and a plurality of openings passing longitudinally through said body and through said handle, each of said openings being adapted to hold a string, whereby plastic candy may be worked around the mold and drawn from the wedge-shaped end thereof with the strings space along the median line of the candy in readiness to be fed to a forming machine.

1,583,134. Tubular Confection. Alexander D. Fisher, Toronto, Ontario, Canada. Filed May 29, 1925. Serial No. 33,723. 4 Claims. (Cl. 107—54.)

1. In a process of forming a tubular confection the steps which consist in forming a chocolate tube, sealing one end by supporting the tube in a vertical position on a plane surface and dropping plastic plugging material to close the bottom of the tube from a point within the tube close to the bottom.

1,583,364. Confection Apparatus. John Parcell, New York, N. Y. Filed April 13, 1923. Serial No. 631,871. 1 Claim. (Cl. 107—8.)



A floss candy machine comprising a platform, a pan fixed to extend thereabove, a section melting pot having a removable upper portion, a vertical shaft supported on said platform, said shaft carrying said pot, a motor on said platform for driving said shaft, a gasoline tank on said platform secured to said pan, a burner below said pot, means for controllably conducting the gasoline to enter said heater, and a series of narrow elongated vertical slots in the wall of said pot opening to said pan, said slots alternating in length whereby floss strands of varying width are extruded.

A Lesson from Peppermint

(*Continued from page* 12)

a radical curtailment of demand. The oil had reached a price where its continued large scale use became impractical. It devolved upon the larger users to take the bull by the horns and cut out peppermint. They did.

Peppermint chewing gums went on an allotment basis; the salesmen were instructed to sell winter green instead. A couple of the toothpaste manufacturers changed the flavor of their creams. The rise was over. The buying movement, checked in December, has not been resumed since. A lesson had been driven home.

The American Peppermint Belt.

The so-called American Peppermint Belt at one time extended from southwestern New York across northern Ohio to southern Michigan and northern Indiana, from whence it now reaches in a southwesterly direction into Illinois. Wayne County, N. Y. (as distinct from Wayne County, Mich., located in the heart of the present peppermint-producing area) was the first section in the United States to grow and distill peppermint on a commercial scale. Of late years peppermint culture has tended to become centralized in northern Indiana and southwestern Michigan, where the rich lowland muck soil especially favors the development of the plant. Notwithstanding the exhausting nature of the peppermint crop, past experience with upland culture in rotation with other crops such as clover, corn, etc., indicates that it is capable of widespread development should the commercial need arise. This is a point to be borne in mind by the peppermint alarmists.

Entertainment Program, N. C. A. Convention

(*Continued from page* 22)

Annual Golf Tournament will be played on the links of a well known local golf club on Monday, May 24th. The entrance fee will be $10.00, which will include a whole day of golf, if you want it, with greens fee, caddies, lunch, dinner, prizes and sundry expenses all thrown in. Details are in a circular mailed concurrently with this Bulletin.

Ladies' Luncheon and Auto Ride. On Wednesday, May 26th, the ladies of the Convention will be taken for an automobile ride along the North Shore to the Edgewater Beach Hotel where luncheon will be served.

Each lady attending the luncheon will receive a very attractive and useful souvenir.

Theatre Party will be on Wednesday evening, seeing the celebrated musical show, "Castles in the Air," at the Shubert Olympic Theatre, which, according to the critics, is "the most beautiful musical play the world has ever seen."

Annual Dinner and Dance will be held in the Louis XVI room at the Hotel Sherman on Thursday evening, May 27th. Entertainment features will be given during the dinner, to be followed by dancing.

What's New at the N. C. A. Exposition!

From the advance information which we have received regarding the exhibits, we note that the following items of equipment and supplies are recent developments. Some of these items will be shown for the first time at the Exposition.

What's New in Equipment

Vacuum sealing and capping machine, for sealing hard candy in vacuum in glass jars. The Aluminum Company of America, Booths No. 33-36, Exhibition Hall.

Crystallizing unit and starch dry room. Bentz Engineering Corp., Booths 21, 22, Exhibition Hall.

Plastic machine (E. & R.), shown for first time. Elder & Robinson, Booths 8, 9, 10, Exhibition Hall.

Plastic machine (Baby Gaebel) and **new roaster,** cleaner and cooler ("Sirocco"). Candy & Chocolate Equipment Co., Booth 32, Exhibition Hall.

Chocolate mold machine for depositing chocolate on inside of hollow molds. Eppelsheimer & Co., Booth 156, Mezzanine.

Continuous starch dryer and cooler. A. Huhn Mfg. Co., Booth 13, Exhibition Hall.

Foiling machine for wrapping confectionery of assorted sizes with foil. James B. McKeage, Booth 38, Exhibition Hall.

Electric floor scrubbing machine. Finnell System, Inc., Booth 117, Ball Room.

Wrapping machine for wrapping small chocolates ("Sapal"). . Package Machinery Co., Booths 112, 113, Ball Room.

Improved sugar sanding machine. Sugar Sanding Machine Co., Booth 2, Exhibition Hall.

Improved continuous cutter. Vacuum Candy Machinery Co., Booths 16, 17, Exhibition Hall.

Starch removing machine for removing starch from cast goods and refilling the trays with starch ready for depositor. Universal Candy & Chocolate Machinery Co., Booth ——

What's New in Packing Materials

New display fixtures. Brunhoff Mfg. Co., Booth 33, Exhibition Hall.

New glassine tubes for wrapping bar goods. Continental Paper & Bag Co., Booth 105, Ball Room.

New lines imported fancy boxes (Max Armbruster). Candy & Chocolate Machinery Co., Booth 32, Exhibition Hall.

New items in tinsel and novelty ribbons and cords for tying candy packages. Hy-Sil Mfg. Co., Lauer, Booth 130, Mezzanine.

New lines imported French box novelties. The Foxon Co., Booth 161, Mezzanine.

New and exclusive designs in miniature cedar chests and other novelty wood containers. Pilliod Lumber Co., Booth 1, Exhibition Hall.

New designs in fancy box papers. Keller-Dorian Paper Co., Booth 146, Mezzanine.

New wood candy containers ("Plaquette"). Fred Lauer, Booth 130, Mezzanine.

New silk-lined cedar chest. Donald F. Duncan, Booth 148, Mezzanine.

New line of hinge cover gift boxes. American Can Co., Nos. 92-94, Ball Room.

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